

AMERICAN GAS ASSOCIATION MONTHLY



Vol. VII

No. 7

JULY, 1925

SUCH organizations as the... American Gas Association are among our surest guaranties against the danger of stagnation and for the preservation of the spirit of enterprise and initiative that must characterize every progressive institution... They are our ambassadors to the public-at-large and they represent us worthily. Their annual conventions and exhibitions are a source of inspiration and profit, affording a meeting-place for the interchange of opinion, for the promotion of good-fellowship, for the broadening of viewpoints.

—GEO. B. CORTELYOU

GAS the Super fuel

-the Burden-Bearer of Big Industry

LACLEDE Gas Light Company

A Portfolio with a Purpose!

Twenty-five million dollars will be spent for public utility advertising this year. Is this money being spent judiciously? What is the general character of advertisements to be used? Does good-will advertising pay? What is the most effective customer ownership advertising?

These questions are answered in the volume illustrated above entitled "200 Representative Public Utility Advertisements." It is the first comprehensive public utility advertising portfolio ever published and is unique in that it contains the best of 1,500 advertisements submitted to the Better Copy Committee of the Public Utilities Advertising Association.

For the executive heads of member companies of this Association, as well as for their advertising and public relations men, this portfolio is a reference book of inestimable value. The contents will prove a veritable storehouse of ideas capable of being adapted to the advertising of the average company.

In view of the fact that a limited edition has been published, orders should be placed promptly with Dempster Murphy, 72 West Adams Street, Chicago, Illinois. The portfolio sells for \$5.00 a copy. Checks sent to Mr. Murphy should be made out in the name of the Public Utilities Advertising Association.





AMERICAN GAS ASSOCIATION MONTHLY

342 MADISON AVENUE, NEW YORK, N. Y.

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JULY, 1925

NUMBER 7

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SUBSCRIPTION RATE

\$3.00 PER YEAR

For statements and opinions contained in papers and discussions appearing herein, the Association does not hold itself responsible.

Entered as Second Class Mail Matter at the Post Office at Brattleboro, Vermont,
February 10th, 1922, under the Act of March 3, 1879.

Our Own Who's Who



II.

CHARLES A. MUNROE

BORN in Vermont in 1875; Graduate Middlebury College and Northwestern University Law School; Admitted to Bar in Illinois, 1897; Began Public Utility Career in 1902; In 1923 made Vice-President of The Peoples Gas Light & Coke Company of Chicago; Resigned June 1924, to Become Chairman of the Board of the Laclede Gas Light Company; Second President of the American Gas Association, 1920-21.

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Training the Personnel for Home Service

By ANNA J. PETERSON, Director of the Home Service Department, Peoples Gas Light & Coke Co., Chicago, Ill.



Mrs. Peterson

Is it possible to make a digestible pie crust which any one may eat? How do you know?"

"Why do you use a slow oven for angel food cake?"

Countless questions such as these pour in to the Home Service Department every day by phone, mail or from visitors, and I find it essential for the members of my staff to have scientific training in Home Economics to answer them clearly and convincingly.

That is why my first question to a woman applying to me for Home Service work is, "What Home Economics training have you had?" This technical training gives her a grasp and mastery of the work which a woman who is merely a good cook does not have. It inspires confidence and makes the work of the department reliable.

The next question I ask her is, "What practical experience in homemaking have you had?" We are serving the housewife who has cooking, the care of children, laundry work, cleaning, and entertaining

to balance nicely and make a smooth running household. To understand her problems, and have the sympathetic interest which leads to constructive service, requires homemaking experience. That is where an older woman has a real contribution to make in Home Service. Several women of my staff are mothers; all have had practical experience.

Our great message is home cooking, and we try to inspire the housewife to do more cooking and better cooking than she has ever done before. But there are just so many hours in the day, and unless we can help her with other household problems so that all runs smoothly, the precious time for cooking slips away. That pan of hot muffins, those golden brown biscuits, or that delicious tender cake which she has seen demonstrated in our kitchen stays unmade.

To demonstrate is an art, and previous experience in this work is most valuable for the Home Service applicant. She must be able to talk and work at the same time, holding the interest of her audience and working rapidly, sure of results.

Teaching experience helps, for she must be able, not only to do it herself, but to explain so clearly that the slowest

Where Life Is a Perpetual Audience



THE CAMERA TELLS THE STORY

1. Men's Night Always Brings a Crowd, Especially When Camp Cooking Is the Subject. 2. Mrs. Peterson's Radio Talks Are So Popular That Radio Dealers Recognize Her by Her Voice When She Comes in to Buy. Her Radio Talks Are Published in the Local Papers. 3. After Talking Before the National Hotel and Restaurant Convention, Mrs. Peterson Received Many Requests from Dining Places to Help Them Run Their Business. 4. So Large Is Her Public That "Home Service, Chicago" Is Immediately Recognized by the Postal Authorities as Mrs. Peterson's Legal Address. 5. Graduation Time Finds Practically All Who Started Still in the Running. Many Come Back Afterwards for More Lessons. 6. The Motor Kitchen Leaves No Possible Audience Uncanvassed.



COMMENCEMENT DAY FOR THE COOKING CLASS
"The Home Service Worker Must Be Attractive, Likable, Kindly and Friendly"

woman in her audience understands and can go home and do it too. I encourage the classroom spirit in my demonstrations, for I want the women to feel that they may ask questions at any time. Then I am sure that the recipes are interesting them, that they are actually learning how to make these foods and will go home and cook them for their families.

The personality of a Home Service worker counts greatly. She must be attractive, kindly, likable, friendly. She must be willing to give of herself freely: nothing must be too much trouble. This is the real spirit of service.

As I tell my girls, "Personality is you. It is the amount of 'youness' which you put into everything you do. When you give of yourself so freely that you lose all consciousness of self, then you have the true spirit of service. You have put personality into your work."

Above all, the right type of woman for this work is one who has no false pride. She is willing to do whatever is to be done. She may be called upon to demonstrate from our lecture kitchen, talk before a woman's club, work in the

display window on Michigan Avenue, talk from the central booth on the main floor of our building, or accompany the Motor Kitchen to a public park or settlement house, giving a demonstration out-of-doors.

In taking a new woman into the department, I try her first in the morning cooking work which is done in our Efficiency Kitchen. Here she has a chance to work without talking. She can cook and show me results. She bakes different foods at my suggestion to be used for display work at the central booth or in the window. Or I may have her testing various recipes, when we are developing new dishes or testing others.

Then I let her assist me in my afternoon demonstrations. She prepares my table, having every utensil and all supplies needed for the entire demonstration. She must be spotlessly clean, deft and quick during the demonstration period. I let her watch the actual cooking at the stove. When the lesson is over, she serves the women and has a chance to get acquainted with them, while I am busy caring for special requests.

In this way she becomes familiar with



MRS. PETERSON AND A FEW MEMBERS OF HER STAFF
Carefully Selected and Trained Women Carry the Gospel of Good Home Cooking

my method of work. She has a chance to watch the audience, see what brings a response, and later she gets acquainted as she serves them.

We make a point of giving our demonstrating instructors the most attractive background possible. The kitchen on the lecture platform is complete in every detail of equipment. A color scheme is carried throughout the walls. Dainty curtains hang at the window through which a landscape or garden scene may be glimpsed.

To be able to demonstrate to a group of women is not all of the art. To work with a large class of children and get their enthusiastic cooperation is an important feature.

In a large organization it is desirable to have specialists for certain kinds of work. For instance, I refer all questions of special diet to one of my staff who has had hospital experience.

In training my staff to broadcast, I have tried all of them before the microphone. I emphasize that the lesson must be well planned, easily covered in the twenty-five minutes allotted to us in the KYW program. It must be presented in an interesting way, with the personal touch which makes a friend out of the listener. At the introduction and at the

end is the greatest opportunity for the direct personal touch which brings the housewife back to the radio at the same hour the next morning with pad and pencil ready for the menu and recipes of the morning. Clear enunciation and even inflection are important points in getting the lesson across.

The telephone service is most important, and the woman in charge there must have a pleasing voice and a fund of housekeeping experience. We have a complete file of all Home Service recipes at the phone, which makes it possible to give quick service.

There is always writing to be done in the way of publicity for the department and description of food work. I have used a Home Economics trained woman for this work, who understands foods and likes to write about them. The office secretary, who types all recipes and takes care of the correspondence, is far more valuable in this work if she has had some practical homemaking experience in addition to her business training.

Through these carefully selected and trained women we carry the joyous gospel of good home cooking which brings health and happiness into countless homes. It goes hand in hand with the use of gas. All good things go together.

Educating the Gas Men of Tomorrow

By KURWIN R. BOYES, Secretary, Committee on Cooperation
with Educational Institutions



©Clifton Church

Massachusetts Institute of Technology.

THE educational institutions of the country are recognizing the public utilities today as never before, and that recognition is continually growing. In fact, courses long needed and wanted in properly educating men for utility work are springing up so rapidly that it is difficult for one even in close contact with this situation to keep informed of all such developments. The attention today being paid to utility securities in the financial world, a demand by utilities for men especially educated for utility work, the work of our Committee on Cooperation with Educational Institutions and local utility association activities of a similar nature all have attracted the attention of universities and colleges to the proper training of men intending to enter the public utility field.

The importance to the gas industry of advanced instruction in gas engineering and public utilities in general cannot be overstated. It arouses a genuine and keen interest on the part of the students of public utilities. It develops a source of supply for properly trained men. It gives students who do not enter the employ of utilities intelligent information and a sympathetic understanding of public utilities, and the influence of these students is valuable. It releases to the

industry new truths as a result of research and investigation.

There have been for a number of years, and still are, many institutions offering courses, a wise selection of which will give students a fine background for employment in the gas industry, as is evidenced in the many great engineers of our industry who obtained their education before the days of highly specialized instruction in gas engineering. There are many gas men today who believe that the older method of education, supplemented by actual experience, results in the best equipped gas engineer. Be that as it may, it is the intention of the writer merely to call attention to the educational facilities available; he will not attempt to pass judgment on the merits of the several methods.

The courses in gas engineering offered at several institutions—University of Illinois, Ohio State University, University of Michigan, Johns Hopkins University and Massachusetts Institute of Technology—are perhaps natural developments in this age of specialization. These gas engineering courses have the same fundamental purposes: (1) the technical training of young men for service in the gas and fuel industries, and (2) securing, collecting and transmitting to the in-

The author of this article has tried to cover the field as inclusively as our present information permits. We should be more than pleased to learn of other institutions which have undertaken activities similar to those above mentioned.—Ed.

dustries information concerning the scientific principles which underly their technical processes. With such aims in mind, surely cooperation and support from the gas industry should and will be forthcoming.

The course announced by the Massachusetts Institute of Technology is a graduate course in Gas and Fuel Engineering, requiring one year's work at the Institute, followed by six months' field work in manufactured gas plants and in other industries, affording a varied experience in fuel utilization. The degree

desirability of gas as an industrial fuel

The Michigan Gas Association established in 1900 at the University of Michigan a Fellowship in Gas Engineering, perhaps the oldest industrial fellowship in the country, with the result that the training of gas engineers has been given especial attention in that University for many years. Opportunity is offered in the graduate courses in the gas engineering group at this University to make a more detailed study of gas manufacture and utilization both in the class room and at gas works.

The Wisconsin Utilities Association has also established a Chair in Gas Engineering at the University of Wisconsin with similar results to that obtained in Michigan. Both these universities have made valuable contributions to the gas industry as the result of research in connection with these fellowships.

The University of Tennessee has but recently announced a course in Gas Engineering offered to seniors in mechanical engineering.

Leaving the strictly technical courses of gas engineering, let us review briefly the instruction being offered in the business end of public utility operation, such as the underlying fundamental economic principles, finance, accounting, management, etc.—important, though not confined alone to gas utilities.

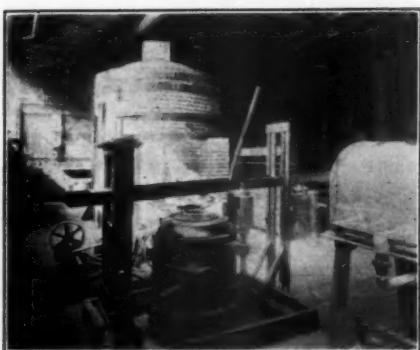
The Graduate School of Business Administration of Harvard University has announced courses of study in Public Utility Management "in the belief that training in the fundamental principles of business is as essential to the wise management of public utility companies as to other branches of commerce and industry." These courses require two years to study, and their objects are to train men for public utility companies and other related businesses, such, for example, as investment banking.

High Temperature Furnace for Testing Strength of Fire Brick Under Heat Installed in Heat Treating Department of University of Illinois.

of Master of Science in Gas and Fuel Engineering will be awarded on the satisfactory completion of this course.

The Southern Gas Association was largely instrumental in the establishment of the Chair in Gas Engineering at Johns Hopkins University and the resulting fine four-year course in Gas Engineering being offered there.

The work of a local gas association has likewise manifested itself at the University of Illinois, to which the Illinois Gas Association contributed the latest gas burning equipment for use in the laboratories, bringing to the attention of the student body and faculty of that University, as never before, the availability and



A four-year undergraduate course is offered by the University of Illinois, through its College of Commerce and Business Administration, designed to give the students a knowledge of the fundamental economic principles underlying the public utility businesses endeavoring to lay a foundation on which successful careers in managerial and administrative work may be built. This University also offers three years of graduate work in public utilities leading to degrees in Master of Science and Doctor of Philosophy.

A similar four-year course with specialization in public utilities and public utility management, leading to the degree of Bachelor of Science, is offered at Northwestern University by its School of Commerce. A very close and worthwhile contact has been established between the utilities of Illinois and both Northwestern and Illinois Universities.

Many institutions of the country offer separate courses in public utilities, generally elective for engineering students. For instance, the State University of Iowa has such a course which covers relation of the public and its utilities, principles of rate making, the taxing problem, fair return, and fundamentals of valuation. Dean W. G. Raymond of this University has published the lectures used in this course in a book entitled "The Public and Its Utilities", which is reviewed elsewhere in this issue. Such courses as these are useful and really essential supplements to utility engineering training.

A course in public utilities was inaugurated at Indiana University this year in order to offer its students an opportunity to study utilities in their relations to the economic and social life of the state. A series of lectures by prominent outside speakers was arranged to supplement the class work.

All the courses of instruction thus far

mentioned are offered in the regular curricula for day students. There are a number of institutions offering evening courses of immense value, especially to the ambitious public utility employee.

An example is the extension course of four hours a week offered in the Night School for Technical Workers at Johns Hopkins University on "The Principles of Modern Practice in Gas Manufacture and Distribution."

A five weeks' summer course on gas production, distribution and utilization is offered yearly at Columbia University. There are four lectures a week, laboratory four afternoons a week, and plant inspection one afternoon a week. Special lectures are given by men from the gas industry. The course will be given this summer from July 6 to August 14.

Another summer course on Industrial Gas is held yearly at the Massachusetts Institute of Technology. This course is of two weeks' duration and is sponsored by the several New England gas associations. It is intended primarily for industrial gas salesmen. The course was conducted this year from June 22 to July 3. The associations found it necessary, in connection with the establishment of this course four years ago, to install the first industrial gas burning appliances at the Institute. This resulted in similar equipment being installed in other laboratories of the Institute and a greater recognition of the possibilities of gas as an industrial fuel by both the faculty and student body of that famous institution. A little thought about this incident makes apparent its significance to the gas industry.

An interesting experiment was started last winter at Temple University the success of which presages its repetition. An evening course for public utility employees was given on general business, economics and law of public utilities. This course was supplemented by others

on the specific utilities, gas, electricity, and street railway. Over 500 students were enrolled from the utilities of Philadelphia and the immediate vicinity, clearly indicating an intense desire on the part of utility employees to further their knowledge of the business in which they are engaged when the opportunity is presented.

A most complete four year evening course is offered by Northwestern University in public utilities and utility management. The curriculum is well planned in its purpose to provide definite, systematic instruction to those who desire to enter the service of public utilities, as well as those who are employed by or associated with public utilities. Being offered in hours which will not conflict with the student's regular employment, it makes it possible for him to obtain training of university grade, while continuing in his regular occupation. Diplomas and degrees are awarded in connection with this course.

The University of Pennsylvania offers at its Evening School of Accounts and Finance a special course in Business Economics and the Regulation and Operation of Public Utilities. This course is specially adapted to the needs of those employed by utility corporations or investment bankers, especially persons whose ambitions cause them to seek promotion from subordinate clerical positions to those of executive control.

Mention should be made of the preparation by two of our leading educational institutions of correspondence courses of particular interest to the gas industry, both of which will likely be available next fall. This movement has well been described as an attempt to bring the college or university to the people.

Columbia University under the auspices of the Committee on Education of Gas Company Employees of the American

Gas Association is developing a two-year correspondence course on gas manufacture, distribution and utilization. The course is being primarily designed to give gas company employees a good fundamental technical knowledge of these phases of their work.

The other correspondence course mentioned is being prepared by Pennsylvania State College on Public Utility Economics. The college faculty is having the co-operation of the utilities of Pennsylvania in this work. The course will be available anywhere throughout the country.

The number of gas meter short courses being offered is increasing yearly. These courses are intended to bring together all men interested in the installation, inspection, repair, testing or proving of gas meters and give them practical instruction in their work. Such courses generally run three days and are now offered yearly at Purdue University, University of Illinois, Iowa State College, and the University of Oklahoma.

Finally, it may not be amiss as indicating the significance of and popular interest which has been aroused by this movement to reproduce the following editorial which recently appeared in the Boston Herald entitled:

BURNING OUR HERITAGE

Probably the most outstanding economic fact of the world today is the rapidity with which we are burning up our stored sources of light, heat and power. In the typical city of Rochester, N. Y., the use of electricity has increased 120 per cent in the last 10 years and of gas 170 per cent. Where are we coming out?

Realizing the importance of this question, the Massachusetts Institute of Technology has started a graduate course in gas and fuel engineering. It could perform no more useful service. The nation's oil supply from petroleum will be exhausted in from 15 to 30 years. The Western shale deposits will prolong the life of natural oil if low cost processes of extraction can be developed. Not fewer than 350,000 buildings, including homes, are being heated by oil.

We are burning our best coal at an alarming rate. Within 15 years most of the people

now using anthracite will have to get along with something else. It may be oil from shale, or coke, or gas, or electricity made from soft coal at the water's edge, but it will be something besides anthracite coal. Natural gas will be used as long as it lasts. Manufactured gas for heating is still in its infancy but interesting developments may be expected.

Tech's idea is to train experts in gas and fuel engineering to find means to save our fuel by its more efficient utilization. They will study the low grade substances, such as lignite, to see if these cannot be employed. The fuel question reaches into every home in the nation. The electric light, the gas stove, the vacuum cleaner, the radio, washing machines, automobiles, street cars and railroads all rest upon the same basic supplies.

The greatest waste of heat comes in poor

building construction. The next is due to individual carelessness. The hotel guest who leaves his heat on and his window open all day in midwinter will be a serious problem in another generation. More than 50 per cent of the heat from coal now goes up the chimney. Another large percentage goes out the window.

Perhaps the young investigators will serve our needs. Meanwhile, if people will continue to burn anthracite to the edge of June, with the windows open the greater part of the day, their descendants will look back on them much as we do on the frontiersmen who slaughtered the buffalo—but with this difference: There is no agreement as to the real desirability of the buffalo; there is no disagreement as to the extraordinary value of anthracite coal.

Nominations for Association Officers

In accordance with the provisions of Section 2 of Article 2 of the By-Laws of the American Gas Association, the Secretary-Manager hereby announces to the membership of the Association, the report of the General Nominating Committee for officers to serve for the ensuing terms. These nominations will be presented at the Annual Convention in Atlantic City in October.

President—Harry C. Abell, Electric Bond & Share Co., New York, N. Y.

Vice-President—A. B. Macbeth, Southern California Gas Co., Los Angeles, Calif.

Treasurer—H. M. Brundage, Consolidated Gas Company of New York, New York, N. Y.

For Directors to serve two years:

T. R. Beal, Central Hudson Gas & Electric Co., Poughkeepsie, N. Y.

Geo. B. Cortelyou, Consolidated Gas Company of New York, New York, N. Y.

Arthur Hewitt, Consumers' Gas Company, Toronto, Ont., Canada.

Alfred Hurlburt, Equitable Gas Company, Pittsburgh, Pa.

R. M. Leach, Glenwood Range Co., Taunton, Mass.

H. C. Morris, Dallas Gas Company, Dallas, Texas.

B. J. Mullaney, The Peoples Gas Light & Coke Co., Chicago, Ill.

Geo. W. Parker, Parker-Russell Mining & Manufacturing Co., St. Louis, Mo.

A. B. DAY

J. S. DEHART, JR.

F. C. FREEMAN

F. H. KNAPP

W. H. TAYLOR

R. B. HARPER, Chairman

General Nominating Committee.

For a National Advertising Campaign

By ALEXANDER FORWARD

A N active member of the American Gas Association writes that, in his opinion, the time has already passed when the Association should have launched a national campaign of advertising. I am not prepared to agree, except upon the supposition that such campaign had been preceded by a period of education and of adequate preparation for tying in local publicity endeavors with the national program; nor do I believe such an effort would now meet with success unless the preparatory work had been carefully planned and the foundations adequately laid.

Judging, however, from the trend of thought frequently expressed in our general and regional meetings, in conversation and in correspondence, it is evident that the minds of our people are turning more and more to the thought that we shall at an early day finance and undertake a plan of co-operative advertising, nationally directed, co-ordinated and carried out with local agencies. The ready response a few gas companies recently made to the appeal for funds for the special campaign to advertise gas for industrial purposes is most significant in its indication of the trend of the times.

No organization in American industry or public service has a more notable story to tell than the Gas Association. We are destined to furnish the world's fuel, and we are preparing ourselves to show, both to the industrial engineer and to the general public, what we can do. Our opportunities to relate our aims in the service of the American people and thereby create the demand, establish confidence, develop good will and popularize our securities, are measured only by the amount of effort we desire to put into the task.

Nothing experimental is here suggested. What we may do has already been done with notable success by such organizations as the Portland Cement Association, the American Face Brick Association, the "Save the Surface Campaign" of the paint people, the Copper and Brass Research Association, the National Lumber Manufacturers Association, and many others.

Nor do we need to go outside the gas industry for a lesson. More than 90% of the gas companies of Great Britain contribute about £40,000, or nearly \$200,000 annually to be spent nationally by the British Commercial Gas Association on advertising the service which gas can render the community and the nation. It is estimated that in addition the gas industry of that country spends £60,000, or \$300,000 on local advertising tied in with the national plan. Should we in America, where advertising generally is much more highly specialized and more generally recognized than in England, base our activities on the same scale, we would spend annually not less than \$400,000 nationally and \$600,000 locally. This, after all, is less than one-third of the percentage of total income expended annually by most of the large advertisers of the nation.

To repeat, it would be a mistake to undertake such a program until we are ready, but it cannot be a mistake to keep it in mind and to give it the consideration its importance deserves.

Seven Witnesses of the House Heating Season

By C. A. GATES, Spokane Gas and Fuel Co., Spokane, Wash.

DURING the summer and early fall of 1924, the Spokane Gas & Fuel Co. installed seven gas house heating plants on a trial basis. It was the aim of the company to ascertain by this experiment to what extent gas house heating could be carried on in Spokane. It seemed that results and information gathered from other localities was not directly applicable to conditions with which we had to contend. Therefore, it was decided that experience alone would give us the desired information. It is the purpose of this paper to pass on to others our actual experiences and the results of the trial in the hope that they may be of value to others who are getting into the house heating game or expect to in the near future.

The homes which were selected to work with as nearly as possible represent the majority of homes we might eventually expect to heat with gas. It was found that practically all hot water systems were at least 10 per cent underradiated. This condition being general, we did not attempt to find perfect systems, nor change those which were good, as

compared with the general average. Although at that time we felt certain that the conversion of coal boilers was unsatisfactory, we did convert one boiler to satisfy our own curiosity and to give us a comparison with the gas-designed boiler. No hot-air conversions were considered; new hot-air gas furnaces replaced the old systems.

From a comparison with data given for other cities, together with the B.t.u. heat loss, the consumption for each home was estimated on the basis of gas at 75 cents per thousand. The equipment was loaned by the company, with the understanding that a definite arrangement was to be made at the close of the heating season regarding the purchase of the appliances by the customer, should the trial prove satisfactory.

Recently, we carefully went over each home and worked out the radiation demand; then, by using the degree day system, checked the gas consumption. By this method we find that we can come reasonably close in a seasonal estimate for consumption. However, the results ran both above and below the actual con-



INSTALLATION NO. 3
Bryant Hot Water Boiler



INSTALLATION NO. 5
Babcock Hot Air Furnace

HOUSE HEATING DATA

Type of Installation	No. of Rooms	Sq. Ft. Radiation	Cu.Ft. Contents	De-mand Cu.Ft. 1 Hr.	Gas Consumption			
					Oct.	Nov.	Dec.	Jan.
1 Babcock H. A. Furnace	8		17,650	240	48.7	66.0	118.5	108.4
2 Bryant Boiler H. W.	8	622	18,500	333	46.4	73.0	111.0	97.0
3 Bryant Boiler H. W.	9	675	22,000	400	60.6	104.7	145.0	126.0
4 Babcock H. A. Furnace	7		17,475	225	33.1	68.5	100.0	89.0
5 Babcock H. A. Furnace	7		15,200	245	51.8*	71.9	97.0	91.0
6 Bryant Boiler H. W.	9	607	21,200	360	47.5	105.1	142.0	125.0
7 H. W. Conversion	8†	662	17,800	440	59.4	89.3	206.0	150.0

*Estimated

†Gallons of Oil

sumption, showing how difficult it is to be exact in a seasonal estimate.

The season temperature proved to be slightly higher than the average annual temperature. There were approximately 330 degree days less than the average year.

Coal used here costs from \$13.00 to \$15.00 per ton delivered, and contains approximately 12,000 B.t.u. per pound. Oil is delivered at 9 cents to 10 cents per gallon and has a B.t.u. value of 130,000. Our gas was figured at 75 cents per thousand, having 530 B.t.u. (Standard condition).

No difficulty was found in supplying adequate heat at all times, after the proper demand was given each installation. All furnaces and boilers were thermostatically controlled, giving the customer the greatest service—automatic heat. Each thermostat was set according to the needs of the customer and cared for entirely by gas company employes. The ordinary heat requirement of our installations was 70°. However, job No. 3 maintained 78° (see chart) and No. 6, 74°. The regulation of all plants, was, of course, governed to a great extent by the habits, number and age of the members of the customers' families, and our prime purpose was to

satisfy each individual home's requirement.

Separate meters were installed in the fuel runs to each furnace or boiler so that heating consumption and demands could be checked accurately. The demands as given in the chart were determined by actual test after the installations were in operation. The demands for the hot-air furnaces proved to be the lowest while the conversion demand was greatest. It will be noted on the chart that the consumption for the first month for No. 5 was estimated; this installation was completed rather late in the month. The consumptions for all installations for May were also estimated in order to give complete data for the season at this time. These values were based on the average monthly temperature and calculated from the balance of the season's consumption.

The amounts and costs of previous fuel as given were obtained from the customer. Some error may occur here as these figures in most cases were given from memory. No account is made for care of ashes, janitor service, nor other expense incident to coal firing. The costs as given merely include coal as delivered, ready for use.

The conversion was installed in a hot water boiler. Two L-shaped burners

—SPOKANE—1924-25

Gas Consumption					Heating Costs						Hours use of Demand	Radiation Demand
Feb.	Mar.	Apr.	May	Season	Gas Cost of Gas \$	Mil- lion B.t.u. \$	Coal Tons Coal \$	Total Cost \$	Mil- lion B.t.u. \$			
89.4	79.1	46.4	35.5*	591.6	443.70	1.50	12	180.00	.625	2465	780	
65.0	61.5	41.4	31.7*	526.9	395.16	1.50	18	252.00	.636	1582	962	
88.8	90.0	60.2	43.1*	718.4	538.80	1.50	3000†	300.00	.769	1796	1005	
64.8	63.7	32.1	28.8*	481.0	360.75	1.50	15	195.00	.54	2133	802	
66.1	68.9	40.8	31.1*	518.7	389.00	1.50	15	210	.636	2117	880	
81.6	83.9	45.4	40.2*	670.7	503.00	1.50	18	252.00	.636	1863	910	
91.4	94.4	60.7	47.9*	799.1	599.30	1.50	No	Data		1816	—	

*Estimated

†Gallons of Oil

were used and tried, both with and without brick baffle. Little difference in consumption could be found. However, it was noted that with the same demand, installation of brick baffle of the type used in Denver raised the flue temperature from 500° to 550°. This appears to indicate a lower efficiency with the baffle.

From the result of the conversion as shown on the chart, we conclude that an increased cost of operation not exceeding 20 per cent in a good boiler would be found. No doubt some business could be obtained in conversions owing to the decreased initial expenditure.

The charted results show that heating with gas, using gas-designed appliances, will run from 1½ to 2½ times the cost of coal, considering only bare fuel costs. An allowance for ash handling and janitor service added to the fuel cost would decrease the ratio in favor of gas and leave only a reasonable difference which must be charged to convenience and cleanliness.

The operation of the installations proved entirely satisfactory to the consumers and will be of no little advantage in turning these trials into permanent house heating plants.

Comparing the costs given by the chart to those given by other cities that are now in a permanent house heating business, it appears that we also are in a posi-

tion to carry on the work. There is no doubt that a certain amount of straight gas heating must be done because of the demand for it. How much more than that actually demanded depends on the sales effort expended. However, the field seems to be restricted, for gas house heating demands a premium of those who would have the best.

BALTIMORE TO BROADCAST

PLANS for a radio broadcasting station for Baltimore have been announced by President Herbert A. Wagner, of the Consolidated Gas Electric Light and Power Company of Baltimore as follows:

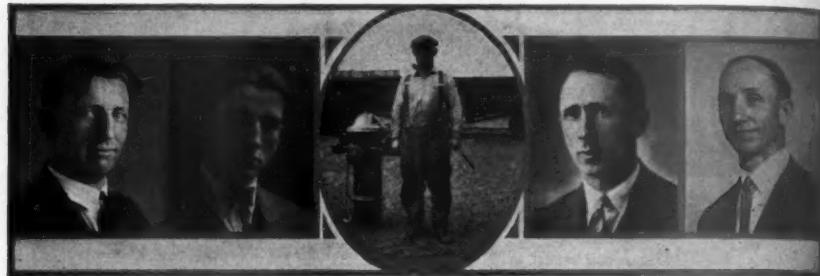
"The Gas and Electric Company has reached the conclusion that Baltimore should be on the Radio Map, and as no one else has come forward with an offer to undertake the job, this company has decided to shoulder this responsibility itself, as a civic duty. It can derive no benefit from this enterprise which will not be shared by all living in Baltimore."

"The purpose of such a broadcasting station should be to advertise Baltimore as a place to live and promote business,—in other words, to broadcast Baltimore and its many advantages rather than any particular business' concern. Radio broadcasting can only be used for advertising in an indirect and inoffensive way."

"Baltimore should have, and is to have, a super power-station conducted in a way to do credit to the city, as a city-wide enterprise."

"While the cost of the proposed broadcasting station and its operation will be large, it is the purpose of the Gas and Electric Company to finance it in such a way as to be negligible in its effect on valuations of the company's property and the establishment of rates for gas and electric service."

McCarter Medal Awards and Certificates



Left to Right: Robert James Mesnard, Peter McManman, Charles Nicholas, Jerry Schey, Frank W. Meeker

FIVE gas company employees were awarded McCarter Medals and Certificates for the saving of human lives by the application of the Schafer prone pressure method of resuscitation. Four others were awarded McCarter Certificates for assisting in these deeds. These awards were authorized by the Accident Prevention Committee on April 28, 1925, and approved by the Executive Board on May 22, 1925.

Frank W. Meeker of Schenectady, N. Y., an employee of the Adirondack Power & Light Corporation, will receive a medal for having rescued and resuscitated a fellow employee who was overcome while splicing cables in a manhole, December 16, 1924. While other employees rubbed the man's arms and legs to stimulate circulation, Meeker gave first aid according to the Schafer method. Complete recovery was effected in less than an hour.

This is the second resuscitation case which Mr. Meeker has to his credit. In 1906 he revived a fellow employee from electric shock.

Robert James Mesnard, assisted by Beatty R. Julien, both employees of the Northern Indiana Gas and Electric Company of Hammond, Indiana, on January 28, 1925, were the means of saving an occupant of a local rooming house who was overcome while in the washroom. Inmates of the house heard his moans and called for help. When the door was broken down, the man was found lying near a water heater which had been burning all day without a flue or any other ventilation. Mesnard and Julien, arriving in response to a call, found the victim lying on his back while a policeman held his mouth open with a spoon. They immediately took charge and revived the unconscious man by means of artificial respiration, putting him to bed in the house, in which the accident occurred.

Jerry Schey assisted by John Richardson and Stanley T. Hilliard, all employees of the Pawtucket Gas Company, on December 19, 1924, resuscitated a fellow workman, who had been overcome by gas while making a cement joint on a sleeve of a two-inch main in an

open ditch. The ditch in which the work was being done was shallow, and the heavy atmospheric conditions of the day were the probable causes of the asphyxiation. Schey, Richardson and Hilliard worked for over thirty minutes before the victim could breathe without assistance.

Charles Nicholas assisted by William C. Woods, on September 24, 1924, resuscitated a drip man, all in the employ of the Chicago By-Products Coke Co., Chicago, Ill. The victim had descended into a sump to pump drip on a gas main at the plant of this company and was found unconscious on the floor. It was necessary for Nicholas and Woods to apply the Schafer method for thirty minutes before the victim was in a condition to be removed to a hospital.

Peter McManman, an employee of the Lake Superior District Power Co., Ashland, Wis., on January 29, 1925, called to set a meter at a house occupied by a bachelor. Receiving no answer to his knocks and because of other circumstances, McManman became suspicious that something was wrong. Summoning a policeman, they broke in and found the victim in bed unconscious from gas which filled the house. The windows and doors were opened immediately and McManman started applying the Schafer Method on the victim and continued it for thirty minutes before the victim regained consciousness and breathed normally. McManman concludes his report of the accident with the statement "I was not at all sorry that I had attended the safety meetings and learned the Schafer prone pressure method of resuscitation."

WESLEY CAGER, the heroic negro calker of the Consolidated Gas Electric Light & Power Company of Baltimore, whose feat of rescuing a fellow employee was described in the May issue of the MONTHLY, has been awarded the Carnegie Medal for heroism together with the sum of \$1,000 in recognition of his bravery.

The Laboratory Becoming a Reality

By R. M. CONNER, Director of the Gas Appliance Testing Laboratory

ORGANIZATION of personnel and installation of equipment for the American Gas Association's Appliance Testing Laboratory is well under way. As indicated by the notice which follows this article, we have fortunately secured the services of an employe of the United States Bureau of Standards. This governmental agency is also providing some of the intricate and highly scientific pieces of testing equipment which will be used largely in the determination of safety characteristics.

It is impossible to approach a discussion of the Laboratory and its purposes without first congratulating the Managing and General Specifications Committees on the large amount of preliminary work which they have done. In view of the fact that all this initial work was entirely voluntary, it is considered unusually noteworthy.

Our Testing Laboratory is being installed at the No. 2 gas plant of the East Ohio Gas Company, foot of East 62nd St., Cleveland, Ohio. The Laboratory's main office is located in the old gas works chemical laboratory building, while the main testing room will be installed on the second floor of the machine shop, some fifty yards distant. Four different kinds of gases are available at this location, namely, natural, carburetted water gas, coke oven and Pintsch gas.

Splendid cooperation is being obtained from the East Ohio Gas Company, who, in addition to furnishing required laboratory space, have assisted in the preliminary organization very materially. Their vice-president and general manager, R. W. Gallagher, is chairman of the Laboratory Managing Committee. His broad

knowledge of the gas industry, coupled with his helpful suggestions offered, are largely responsible for the rapid progress which has been made so far.

Piping and sufficient holder capacity is being provided so that large quantities of any one of three different kinds of gas may be used at one time. This will permit the conduct of different kinds of research work or numerous routine tests to proceed without interference.

The matter of preparing test standards is under the supervision of our General Specifications Committee, which is composed of an equal number of gas company and manufacturer representatives. The Bureau of Standards, Bureau of Mines, and Public Health Service are also represented. Preparation of actual specification work has been detailed to sub-committees, who also represent the interests of our entire industry. Before the work of these sub-committees is finally adopted, it must first pass the General Specifications Committee and then



Manual Thermal Conductivity Apparatus Installed at Laboratory by Bureau of Standards.

receive, before final adoption, the approval of the Executive Board. The interests of all concerned, therefore, are very adequately safeguarded.

Of special interest to appliance manufacturers are the rules approved by the General Specifications Committee during its meeting on April 21st through the adoption of the following resolution:

"First: That the sub-committee which is in charge of the actual preparation of a particular specification should, on the completion of its work, report its recommendations to the General Specifications Committee. Upon the approval of the General Specifications Committee, the report will be printed and sent to all gas companies and manufacturers who are members of the American Gas Association.

"A notation on this report will request the gas companies and manufacturers to submit criticisms and suggestions which will be acceptable up to three months after distribution. These suggestions and criticisms are then submitted to the sub-committee, who will report back to the General Specifications Committee for final action. The specification will then be tentative until the manufacturers have had an opportunity to accommodate themselves to the new requirements. The period for which the specification remains tentative will depend upon the individual manufacturer, and it is felt that this condition will solve itself in that the gas companies ordering appliances will demand appliances complying with the new specification, and that the manufacturer will therefore comply as quickly as his plant facilities will permit. The tentative period, however, should never exceed one year."

This method of procedure was unanimously adopted by the Executive Board in Atlantic City on May 22.

Some rough computations indicate that there are about 250 different makes of gas ranges, 100 water heaters, 125 space heaters, 20 garage heaters, 25 gas steam

boilers, 35 different makes of gas furnaces and various other appliances, making a total of about 555 appliances manufactured in the United States today. This figure does not take into consideration the number of different models or makes which each manufacturer supplies, running the total number well up into the thousands. A study of these figures gives one at once an idea of the number of problems which will have to be met and the amount of work which must be done before the whole laboratory plan can be carried to a successful conclusion.

Sub-committees are now being formed for the preparation of specifications for space heaters, central househeating appliances, water heaters and the revision of present gas range specifications. These will be then considered by the General Specifications Committee. The final Specifications adopted by the General Committee will be followed by our Laboratory to the letter.

Final specifications are approved and now available for the testing of gas tubing and the Laboratory is considering proceeding with tubing tests immediately. Inasmuch as complete specifications on gas tubing are now available, it is recommended that tubing manufacturers now members of the A. G. A. study these specifications very carefully in order that they may familiarize themselves with the requirements that their product will be expected to meet prior to the time that they are asked to submit samples for test.

Fundamentally, the program which has been laid out for the establishment of our Laboratory by the various interested committees seems sound. It should prove a notable asset to our industry and a monument to the men who have made its inception a reality. Its initial mission will be to increase the desirability and safety of gas utilization by:

- (a) Raising the construction and performance standards of appliances.
- (b) Elimination of hazardous and inferior equipment so far as it is possible at this time.
- (c) Creation of greater confidence on the part of the gas consuming public in the merits of gas burning equipment.
- (d) An effort to secure cooperation from gas companies to recognize such types of appliances as have been approved by the A. G. A. Appliance Testing Laboratory.

During our organization period there will no doubt be numerous minor difficulties and problems which must be met and solved. The whole matter will be greatly simplified, however, by the splendid spirit of cooperation existing throughout the entire industry today and the sympathetic viewpoint with which all laboratory plans are generally regarded.

of atmospheric gas burners in general. He also assisted in the City of Baltimore investigation. Recently he has been engaged in conducting various tests in conjunction with the research work now being undertaken by the Bureau of Standards for the American Gas Association. His employment should be a valuable acquisition to the A. G. A. Laboratory staff and should increase further the feeling of confidence with which this organization is regarded.

Gas on the Sky-Line



Courtesy Combustion

Bureau of Standards Man Joins Laboratory Force



G. B. Shawn

G. B. SHAWN, who has been connected with the U. S. Bureau of Standards for the past five years, is the latest addition to the Laboratory staff. Mr. Shawn began his schooling at Johns Hopkins University

in 1915, but left there in 1917 to enter the U. S. Army. After about a year and a half of service in France, considerable time of which was at the front, he returned and graduated from George Washington University, Washington, D. C., with an A. B. degree in chemistry.

Mr. Shawn's work at the Bureau has been confined largely to the improvement of natural gas burners and design

IN CONNECTION with the accompanying photograph, it is interesting to note the difference in treatment of the gas tank in Berlin, Germany, and the gas tanks that we are used to seeing in other parts of the world. In the foreground is the Nerve Hospital in an outlying district of Berlin, and immediately behind the hospital property the gas works are going full blast. The tanks rise and fall as gas tanks do, but they do not mar the landscape; rather they resemble great circular buildings, and to the uninitiated traveler the first thought is to wonder what the rather attractive and massive building is. He is much surprised to find that it is nothing more than an artistic cover for the tank.

Vernon Baker



Vernon Baker

neering Company of St. Louis, was adopted at a recent meeting of the Carbonization Committee:

"In the sudden death of Vernon Baker, the Carbonization Committee of the American Gas Association loses a member, and the gas fraternity a man of great ability and character, which endeared him to all.

"To have been associated with him as an engineer or friend was an inspiration which will be treasured.

"This Committee wishes especially to express to his family, to whom the loss is infinitely greater, its deepest sympathy."

Vernon Baker died in Boston on May 16, having contracted pneumonia while on a business trip to New England.

He graduated from Washington University in St. Louis and accepted the position of assistant engineer in the water department of the city. He then joined the staff of the Parker-Russell Mining & Manufacturing Company, and worked himself up to the position of chief engineer. In 1914 he left the Parker-Russell Company and became chief engineer of the Russell Engineering Company, which position he held at the time of his death. A short time ago he was made vice-president of the company.

Mr. Baker was much interested in the development of tunnel kilns and the manufacture of fire clay brick.

His home was in Webster Groves, Mo. He is survived by his widow.

Leonard Lamb Kellogg

THE following resolution on the death of Vernon Baker, chairman of the Builders' Section of the Carbonization Committee and chief engineer and vice-president of the Russell Eng-

HE death is reported of Leonard Lamb Kellogg, president of the Sioux City Gas and Electric Company. Mr. Kellogg was born October 31, 1856, at Haverhill, Ohio. Going to Sioux City in 1885, he took charge of a dilapidated gas plant with a few hundred patrons and developed it until today its customers number nearly 21,000. He was always a strong supporter of movements for civic and community welfare, and took an active part in the McKinley presidential campaign in 1897.

Mr. Kellogg was the largest individual stockholder in the Sioux City Gas and Electric Company and was founder and first president of the Iowa District Gas Association. At the annual convention in Sioux City last fall, he celebrated his fiftieth anniversary in the gas business. He was the last of the group of individual heads of Sioux City's pioneer industries.

He is survived by his widow, one daughter, Mrs. Alice Marie Moseley and one grandson, Kellogg Moseley, all of Sioux City.

Will W. Barnes

AT the meeting of the Managing Committee of the Manufacturers Section of the A. G. A., held at the Hotel Traymore, Atlantic City, N. J., on May 21, the following minute was unanimously adopted:

"In the passing of Will W. Barnes the manufacturers have lost a member and the gas industry a man whose kindness and qualities of good fellowship endeared him to all. As the first secretary of the Manufacturers Section of the American Gas Association by his ability he contributed greatly to the building of the foundation on which our present structure exists.

"We who have been associated with him greatly treasure having known him and wish therefore to express to his family our deepest sympathy."

In Memoriam

Frank G. Smith, Consolidated Gas Co., New York

Ask the Librarian, He Knows

A Plea for Closer Cooperation Between Executives and Reference Headquarters

By ALMA C. MITCHILL, Public Service Electric and Gas Co., Newark, N. J.



A COMPANY'S OWN INFORMATION BUREAU
Library of the Public Service Electric and Gas Co., New Jersey

AN early conception of a library was that it should serve as a depository for books, pamphlets, magazines, etc., which should be properly classified, indexed and filed until called for. The librarian was merely the custodian of this material, and was looked upon as one having a very easy time of it. Today that conception has entirely vanished, and among the various types of libraries which have come into being is the business or company library. The librarian, instead of having an easy time of it, should be one of the busiest individuals in the organization, because in a special sense he or she is the one person who should have an all round understanding of the problems of the business.

Officials in public utility companies throughout the country are realizing the value of an information bureau established within their own organizations. Through the means of such a library, executives and department heads are furnished with printed information of importance bearing on the problems of their particular line of work.

This is done in various ways; in some libraries a daily bulletin is issued by the librarian, listing rate changes, new incorporations, current market prices, labor conditions, commission rulings, court decisions, new construction projects, etc., as appear from day to day in the technical journal and financial newspapers. Others issue daily, weekly or bi-monthly lists of books and magazine articles, giving brief abstracts of each. The librarian, in daily reviewing the material which comes to his or her desk, has a better opportunity of noting new experiments and investigations than the busy departmental executive. He is not so apt to know that, embodied in a few obscurely hidden paragraphs is the new principle or solution for which he has searched in vain. It is the duty of the trained librarian to bring these inconspicuous items to his attention.

Another *raison d'être* for the company library is the time saved by the business man or engineer in searching for data along various lines. Public utilities and business houses have found that it is



In the Baltimore Company's Library, a Valuable Adjunct to Employee Education Work.

cheaper to organize a library department to do their research work for them than it is for them to take their own time or the time of their department heads to search for information, which often ends unsatisfactorily, simply because they have not on hand the necessary tools.

More than one incident can be cited where considerable time has been spent needlessly when the librarian, if there had been one, could have undoubtedly produced the information from within his or her own files. The following examples very concretely bring out this point. A well-known scientist was recently saved from an extended investigation into the accuracy of a law which he believed had not been verified in approximately fifteen years by having his librarian hand him an article which had been published within six months, describing an elaborate study made abroad, which apparently settled the question.

A financial house in the Middle West found it necessary one day to communicate with the experimental laboratory of Alexander Graham Bell in Nova Scotia. There are no directories giving this information, but through the means of a business library, the address was procured within an hour.

The following is an example for time lost when not consulting the company library first. A busy executive needed certain accurate figures in compiling a report which had to be in at a certain time. Instead of calling his own librarian, he practically wasted two weeks in searching for this data elsewhere. At the eleventh hour, or the afternoon before the report was due, he turned the question over to his own library. The figures were in his hands before he went home that night, whereas, if he had consulted his librarian in the first place, he would have saved himself two weeks wasted time and energy.

Another example of this kind is brought out by a member of a technical concern, who packed his grip, spent two weeks in a distant city, and came back triumphantly bearing three documents containing certain valuable data needed for a certain technical problem, only to find later that these documents were on file in his own library. Nowadays, in that organization there is a standing rule that the company library be consulted first.

The company library has another mission than that of purely research work,



Comfort Is a Feature of the Peoples Gas Light and Coke Company's Reading Room.



Another View of the Library of the People's Gas Light and Coke Company of Chicago

which is to supply reading matter for the education and recreation of the employee. In many companies the library is used as a reading room at noon, and suitable books and magazines are supplied for this purpose. Reading lists are compiled upon request by the librarian, and when educational classes are conducted, the books and other material needed are loaned through the library. Those taking outside courses at night are often considerably helped by the librarian securing for them, through other sources, the books required to be read in conjunction with their studies.

The value of the company library is hampered, however, if those responsible for its creation do not co-operate fully with the librarian. In spite of the fact that the status of the librarian has greatly improved since the time when he was merely a custodian of books, there is still considerable room for improvement. The executive, engineer and employee have yet to be educated up to the full value of the business library, and the librarian must not place his profession before the industry. He who says, "I am a librarian, not an engineer", is capable of raising barriers which will greatly interfere

with the co-operation which is so vital in any organization.

Many executives think that, when a trained librarian has been engaged and the library organized, that it is all that is necessary, and the rest is up to the librarian. Nothing could be further from the truth. It is only when the executive, department head, engineer and employee make of the librarian a confidant as to what their information needs are, that he can grasp and comprehend the needs of the company for which he is working. It is only in this way that efficient and effective service can be rendered. The business librarian is not a mind reader, and, although he learns considerable through observation and the proverbial sixth sense, he cannot, through any imaginary process, know that a certain construction project is being contemplated unless he is taken into the confidence of those planning for it.

One large bank has the librarian read the daily mail. In this way she is kept well informed of what will be required of her. And when information is requested, she has it on hand. In other companies the librarian is asked to attend conferences of department heads or

to be present at section meetings throughout the organization. As Miss Louise B. Krause, librarian of H. M. Byllesby & Company, Chicago, so aptly puts it in her book "Better Business Libraries", "The business library cannot adequately function without the complete confidence and co-operation of the executives of the organization."

If this is true within the organization, cannot it be equally true between the engineering profession and the profession of librarianship? There are the American Library Association, within which certain round tables are devoted to corresponding enterprises such as the Agricultural Round Table, Business Round Table, etc., and a Special Libraries Association, whose membership is composed chiefly of business and other specialized librarians. In the engineering field, there are the American Gas Association, the National Electric Light Association, the American Society of Civil Engineers, the American Society for Mechanical Engineers, the American Institute of Architects, the American Institute of Electrical Engineers, the American Electrical Railway Association, and numerous others.

But there is not any group or section within these representative associations whereby both engineers and librarians can get together and discuss those subjects which are of interest and of benefit to them both. Within the American Gas Association there are committees such as the Accident Prevention Committee, Finance Committee, Customer Ownership Committee, Education of Gas Company Employees Committee, and many others. Why not a Library Committee? What the engineer and executive needs above everything else is a better knowledge of what the company library can do for them individually and collectively, and the librarian needs to

gain a broader viewpoint of the work undertaken and contemplated by the business world and engineering profession.

One of the functions of this committee might be the planning of a library exhibit at one of the annual conventions of the Engineering Associations. The National Safety Council has such an exhibit each year which brings before its members the activities of the Library and Information Bureau. A paragraph taken from the November 1924 issue of "Special Libraries" will give an idea of the extent of such an exhibit.

"Over 2000 delegates attending the National Safety Council Annual Congress at Louisville, Ky., September 29th to October 3, 1924, visited the Library and Information booth, brought their accident problems for solution and saw in a concrete way the activities of the Library. This was the sixth year that the Library has maintained an exhibit at the Annual Congress. The exhibit graphically portrayed recent developments in the field of accident prevention, industrial health and hygiene and allied subjects. Over 75 research requests were looked up for members. If the information was not at hand the request was brought back to headquarters in Chicago for investigation."

A similar exhibit was undertaken by the financial libraries at the October, 1924, convention of the American Bankers Association. A full account of this exhibit is given in the November issue of "Special Libraries."

In conclusion let me say that the best way for business houses and public utilities to keep in touch with modern thought and problems is through the establishment of company libraries. Something is vitally wrong if the library is the first item to be cut from the budget. It should be the money saving department of the organization.

The Best Method of Handling Final Bills in Large Situations

By DANIEL A. CUMMINGS, The Peoples Gas Light & Coke Co., Chicago, Ill.



Daniel A. Cummings

THE title of this article as you see it printed is exactly as it was submitted to me. You will note that it reads "Best Method of Handling", and as my interpretation of the word "handling" when used as a prefix

to the word "bill" is synonymous with "collection of", I shall try to present my views from that angle.

Bills are not the most agreeable things received by customers of any institution, and our bills and our customers and our institution are not exceptions. According to some technical engineers I know of who are responsible for production and sales, the billing for service supplied and the sending of collectors for delinquent payments are necessary evils that must be accepted as part of the day's routine—nothing more, nothing less. But how long would a successful business continue to be successful if the keeping of accounts and collection of bills were not under the direction of specialists who understand the game all the way from A to Z and then backwards from Z to A.

In the language of the gas industry there are two kinds of bills, regular bills and final bills. In most companies regular bills are delivered to the customer once a month and represent the charge for gas service during the regular monthly billing period. Final bills are those representing the charge for the period, running from the date of the last regular meter reading to the date upon which the service was discontinued, more commonly called the cut-off date.

The relationship of credits and collections is so closely allied with the success or failure of a business institution that the subject must be considered of vital importance in any analysis of commercial economies. As a matter of fact, the Credit Department is the balance wheel of the institution, inasmuch as it controls the sales through approval or disapproval of sales, and is, therefore, responsible for the profits or the losses.

How do we deal with 790,000 accounts, and keep the bad debt write-off down to a point lower than one half of one per cent? Some credit men will tell you that the proper way is to ask the customer for cash security or deposit at the time he applies for service. We gave up that idea long, long ago. The Chicago policy is not to seek a reason for asking a cash deposit, but rather to seek a reason why it should not be requested. Less than two per cent of our customers have their accounts secured by cash deposits. This writer believes that liberal credits and close collections are a feature of good management, and also that the average customer instinctively feels the reserve strength of a well-developed collection system behind a liberal credit policy.

Our company believes in service first, and in line with this policy all orders for service are executed usually on the day following that upon which the application was made. After the gas service has been turned on, the applications (or contracts) are forwarded to the Credit and Collections Department for credit approval. If the application shows a "Last Supplied" address in Chicago, reference is made to the ledger carrying the previous account, and, if the record shows

reasonably prompt payments, the application is approved; but if, in the judgment of the credit investigator, the account looks like a poor risk, the application is sent on the street for investigation to determine whether or not a cash deposit should be asked. Applications received from customers using service for the first time and known as NEW CUSTOMERS are, for purposes of credit analysis, sorted into four classifications as below:

we decided to discontinue the practice. A big step forward was made by this action. You will see what has been saved through eliminating the writing of 40,000 letters during the course of a year. Should a bill confront us at a later date, it is time enough to get in communication with the employer or the person whose name has been given as reference. That is, we can refer to the record should it be necessary to trace the customer.

The Peoples Gas Light and Coke Com-

APPLICATION FOR GAS	
ADDRESS	126 So Michigan Ave
CREDIT NO.	85790
FLOOR LOCATION	2
NAME	Edward Head
TYPE OF BUSINESS	DRUG
ADDRESS	45
REFERENCE	
PHONE NO.	225-6600
ADDRESS	
<small>40 domestic consumption inquiries or less, residence, apartment, rooming house, business, hotel, private home or garage, office, store, factory or office, give nature of business and whether manufacturing, wholesale or retail.</small>	
<small>The subscriber hereby agrees for gas to be supplied by the Company at the rates determined previously, or at any other price or additional charges which may be established by the Company, and agrees to pay for such gas as supplied, until all bills due the Company, and the amount of any fines, penalties, costs, expenses, and attorney's fees, and all other amounts due the Company, shall have been paid in full, and to the satisfaction of the Company.</small>	
<small>The subscriber further agrees to pay the cost of all taxes, to read, repair, test off, and restore the meter.</small>	
<small>THE PEOPLES GAS LIGHT & CO. CHICAGO 5-21-1926</small>	
<small>CHICAGO 5-21-1926</small>	
<small>This application is loan subject to approval of the Credit and Collection Department of The Peoples Gas Light & Coke Company.</small>	

APPLICATION FOR GAS	
ADDRESS	1504 Laker Shore Drive
CREDIT NO.	85791
FLOOR LOCATION	RESIDENCE
NAME	NEW SHOREMAN
TYPE OF BUSINESS	OPEN
REFERENCE	LEO V. TRACY
ADDRESS	31 So 45th & Braction
REFERENCE	B. J. Mulligan
PHONE NO.	123
ADDRESS	So Michigan Ave
<small>40 domestic consumption inquiries or less, residence, apartment, rooming house, business, hotel, private home or garage, office, store, factory or office, give nature of business and whether manufacturing, wholesale or retail.</small>	
<small>The subscriber hereby agrees for gas to be supplied by the Company at the rates determined previously, or at any other price or additional charges which may be established by the Company, and agrees to pay for such gas as supplied, until all bills due the Company, and the amount of any fines, penalties, costs, expenses, and attorney's fees, and all other amounts due the Company, shall have been paid in full, and to the satisfaction of the Company.</small>	
<small>The subscriber further agrees to pay the cost of all taxes, to read, repair, test off, and restore the meter.</small>	
<small>THE PEOPLES GAS LIGHT & CO. CHICAGO 5-21-1926</small>	
<small>Signed <i>Leo V. Tracy</i></small>	
<small>This application is loan subject to approval of the Credit and Collection Department of The Peoples Gas Light & Coke Company.</small>	

1. Applications not showing the required information. Such applications are given to the Final Bill Collector, who obtains the information either over the telephone or through street investigation.

2. Applications received from owners of property and people of prominence whose credit standing has been established. These applications are invariably approved without any investigation.

APPLICATION FOR GAS	
ADDRESS	510 W 25 Place
CREDIT NO.	85792
FLOOR LOCATION	1
NAME	New Customer
TYPE OF BUSINESS	FACTORY
REFERENCE	Sullivan Steel Company
ADDRESS	400
REFERENCE	
PHONE NO.	225-6600
ADDRESS	
<small>40 domestic consumption inquiries or less, residence, apartment, rooming house, business, hotel, private home or garage, office, store, factory or office, give nature of business and whether manufacturing, wholesale or retail.</small>	
<small>The subscriber hereby agrees for gas to be supplied by the Company at the rates determined previously, or at any other price or additional charges which may be established by the Company, and agrees to pay for such gas as supplied, until all bills due the Company, and the amount of any fines, penalties, costs, expenses, and attorney's fees, and all other amounts due the Company, shall have been paid in full, and to the satisfaction of the Company.</small>	
<small>The subscriber further agrees to pay the cost of all taxes, to read, repair, test off, and restore the meter.</small>	
<small>THE PEOPLES GAS LIGHT & CO. CHICAGO 5-21-1926</small>	
<small>Signed <i>John S. Feltman</i></small>	
<small>This application is loan subject to approval of the Credit and Collection Department of The Peoples Gas Light & Coke Company.</small>	

APPLICATION FOR GAS	
ADDRESS	1242 N Peoria Ave
CREDIT NO.	85793
FLOOR LOCATION	2
NAME	Ben Fierberg
TYPE OF BUSINESS	OPEN
REFERENCE	Beckman Metal Co
ADDRESS	1260 Marquette St Manager
REFERENCE	Hugo Manual
PHONE NO.	225-6600
ADDRESS	Ave
<small>40 domestic consumption inquiries or less, residence, apartment, rooming house, business, hotel, private home or garage, office, store, factory or office, give nature of business and whether manufacturing, wholesale or retail.</small>	
<small>The subscriber hereby agrees for gas to be supplied by the Company at the rates determined previously, or at any other price or additional charges which may be established by the Company, and agrees to pay for such gas as supplied, until all bills due the Company, and the amount of any fines, penalties, costs, expenses, and attorney's fees, and all other amounts due the Company, shall have been paid in full, and to the satisfaction of the Company.</small>	
<small>The subscriber further agrees to pay the cost of all taxes, to read, repair, test off, and restore the meter.</small>	
<small>THE PEOPLES GAS LIGHT & CO. CHICAGO 5-21-1926</small>	
<small>Signed <i>Ben Fierberg</i></small>	
<small>This application is loan subject to approval of the Credit and Collection Department of The Peoples Gas Light & Coke Company.</small>	

3. Applications from business concerns where there is a probability of a large consumption of gas. Advantage of Dun and Bradstreet is taken with this type of customer.

4. Applications where the customer gives as reference his employer or some acquaintance. A letter of inquiry in such cases has been discontinued, with a saving of 40,000 letters a year.

In disposing of the last mentioned class, our practice for years has been to mail a letter of inquiry enclosing a stamped addressed envelope for an answer. Since such inquiries were, almost without exception, answered favorably,

pany issues close to 300,000 final bills each year. These bills are made out in triplicate, all three being immediately turned over to the Collection Department. One copy is returned to the bookkeeper as a receipt and an acknowledg-



"Timidity in Asking Questions Cannot Be Found Anywhere in the Makeup of the Man Who Works Final Bills."

ment by the Collection Department that the bill has been received, one copy mailed to the customer, and the third retained by the Collection Department as a working copy.

Final bills are payable NET ten days from date of bill, and about 53 per cent of them are paid within that time. At the expiration of the ten-day payment period all bills showing a forwarding address, where the customer is using gas, are distributed among the bookkeepers to be recorded at the new address to be added to the next gas bill being sent out. The bills so charged are then returned to the Collection Department and placed in what is known as the CHARGE FILE, to remain until customer has been given reasonable opportunity to pay with bill for gas used at the new address. If they are not paid with the regular succeeding bills, they are taken from the Charge File and given to the collectors. Final bills having no forwarding address, or those where the customer has no account at the forwarding address, are also turned over to the collectors. When a final bill is paid, the bookkeeper notifies the Collection Department by sending the copy

of the bill which has been retained in his file.

Getting down to the actual collection of final bills, it should be said that this branch of activity is a highly important one and requires operatives peculiarly adapted to this class of work. For convenience in handling the tremendous volume of detail in connection with this important work, the city is divided into eight geographical districts, each under the direction of a supervisor with eight men; and it is through the supervisor that the collectors receive their work. Among the bills where there is no new address given, there is a large number representing gas used by a class of people who will pay only when they have to, and who endeavor to dodge payment by getting service under an assumed name or in the name of some relative. It is this class that creates the necessity for specialists in Final Bill Collections.

When a debtor who has left an unpaid Final Bill from a previous address is discovered using gas in an assumed name, a new application is taken to correct the condition and a request made for the amount of the unpaid bill. If the customer is unable to pay at the time, an arrangement is made for payment in



Receiving New Applications for Service. All Orders Are Executed Here on the Day Following.

the near future. Often such bills are paid in installments.

If a customer who has taken refuge under a name different from his own refuses to pay or to sign a new application, a deposit to secure the payment of future bills is requested, and upon failure either to pay the bills or the required cash security, the service is discontinued. In some such cases a cash deposit is insisted on even after payment of bills has been obtained.

To former customers whose accounts show an outstanding balance, still customers of our city but not using gas service, and those who have located in other cities and will not pay their bills, a series of letters legally constructed is sent and the results have proved satisfactory. These letters, mailed only when milder requests for payment have been ignored, are made up in a series of three, each succeeding one slightly stronger in language than its predecessor, and if no response follows the third one, the bill is placed in what is known as the "dead file." Actual legal action is seldom, if ever, used in collection of bills. As a matter of fact, not one case requiring aid from the attorney has presented itself during the past six years.

Final bills during a calendar year that are not paid on December 31 of the succeeding year are charged off and entered on the BAD DEBT ledger. That does not mean, however, that they remain unpaid. On the contrary, a good percentage of this money is collected through the efforts of a special group of men assigned exclusively to accounts of this nature.

The most successful factor which makes for successful results in Final Bill collections is the type of man engaged in the actual street work. The ability to locate people who do not want to be found is an asset that must be among the possessions of a Final Bill Collector.

There are, of course, many fundamental rules to follow, the first and most important being to get the correct full name of the person who owes the bill. Subsequent operations are much simpler if the correct name is known. Next in importance is the occupation and place of business or employment of the customer.

Timidity in asking questions cannot be found anywhere in the makeup of the man who works final bills. He must not know bashfulness, but he must be discreet and long on tact. If no one in the immediate vicinity of the last known address of the person he is seeking knows the new address, it might be that some neighbor knows the name of the moving contractor; or perhaps the neighboring grocer, butcher or druggist may be able to supply the desired information. The city directory and telephone directory are, of course, valuable assets. There is also the child medium. It may be that the children of our former customer left a record of their new location with the school teacher. There are many ways to trace a delinquent, but the natural ability must be present in the operative.

ON BITUMINOUS FUEL

BY THE USE OF properly designed equipment, the low-sulphur coals of the Middle West, which are not regarded as first grade coals for coal gas and coke manufacture, can be made to give almost as good results in the generation of water-gas as can be obtained from the more expensive eastern high-volatile coals, states Wm. A. Dunkley, illuminating gas engineer, Department of the Interior, in Technical Paper 335, just issued by the Bureau of Mines. The extensive use of Illinois, Indiana and other mid-western coals in water-gas generation in substitution for the coke from eastern coals is important in that more coke is thus saved for use in industries where bituminous coal cannot be employed to advantage; moreover, transportation of coal from eastern fields is avoided.

Copies of Technical Paper 335, "Bituminous coal as generator fuel for large water-gas sets with waste-heat boilers," may be obtained from the Department of the Interior, Bureau of Mines, Washington, D. C.

A Suggested Scheme of Superannuation

By R. C. BISHOP, Christchurch Gas Co., New Zealand



Offices of Christchurch Gas Company, New Zealand

THE question of evolving some scheme that will enable old and faithful employees to acquire a retiring allowance when advancing age or incapacity compels them to retire from active work in the company's service is equally of importance to both employer and employed.

It has been customary with us to lay the particulars of each case before the board, and they have invariably voted a sympathetic allowance; this has worked very well, but I always have felt that all these cases should be decided in some more systematic manner, and for some years I have been studying schemes that have been adopted by other organizations, and in all of them they either appeared too complicated or too expensive, generally requiring a large vote by the employer to first establish the scheme.

One great difficulty that is experienced in establishing any scheme of superannuation is how to treat the older hands. There always is a proportion of those who have served the company loyally for

many years and grown old in the service. In consequence of their age, the premium is comparatively heavy and they have to be separately considered; as time goes on, this difficulty gradually disappears.

There is no doubt in my mind that some scheme of the nature of the one we have adopted is of considerable benefit both to the employer and employee; it tends to make the employee recognize the importance of making some provision for old age, and from the fact that the company is bearing half the cost of the premiums, brings home to the insured the interest the company has in his welfare, and this again tends to make the employee more contented with his position and less inclined to drift.

This becomes more apparent as time rolls on and the value of his insurance increases. Anything that assists in stabilizing employment must act beneficially to both parties, and consequently has an influence for good in the relations of employer and employee as well as on the somewhat acrimonious discussions that

unfortunately are experienced when claims are made by the workers for a new award.

The following is the scheme that recently has been adopted by the Christchurch Gas Company of Australia, and carried through for them by the Australian Mutual Provident Society, dated from May 14th, 1924.

We have confined the scheme to those employees who have served the company for five years and upwards; there were 145 eligible with ages ranging from 25 to 70; of these, 115 have taken out policies.

These policies cover immediate life insurance from £100 to £625, according to age and salary or wages earned, and, at the retiring age of 65, the superannuation coming to them runs from £112 to £1125.

The premiums are according to age and salary, as per the following scale:-

Age	Percentage of salary contributable by Employees	Percentage of subsidy contributable by Company
25/30	2 per cent	2 per cent
31/40	2½ "	2½ "
41/50	3 "	3 "
51/55	4 "	4 "
56/60	5 "	5 "
61/65	7½ "	7½ "
66/70	10 "	10 "

The company pays a subsidy of one pound for every pound contributed by the members.

In all cases of life insurance the death benefit operates from the moment the proposal is accepted. Any surrender value only operates after two years' premiums have been paid.

Provision is made in the agreement that in the event of resignation or dismissal of an employe the contract at once becomes cancelled, but the member so af-

fected can, by giving notice, continue his policy, but he must repay the company all premiums it has paid in respect to this particular policy. If this member does not desire to continue his policy, then the surrender value is drawn from the Australian Mutual Provident Society, and one-half paid to the retiring employe. Provision is also made to permit an employe on receipt of a higher wage to increase his assurance proportionately, if he so desires, and any employe qualifying with five years' service can join the scheme.

The whole scheme is entrusted to two trustees, one to be appointed by the company, and one elected by the members. These trustees hold the policies and control the working.

The total annual premiums for the whole number of the insured is first paid by the company, and the proportions due by the members are deducted weekly from the employe's pay; this deduction is by special authority given by each member and is recognized as no breach of any act protecting the payment of the men's wages.

The total amount our company pays the Australian Mutual Provident Society per annum is £2408 (about \$12,000), half of which is returned to us by the members' payments.

Several of the higher paid members of the staff have been allowed to increase the amount of their policies.

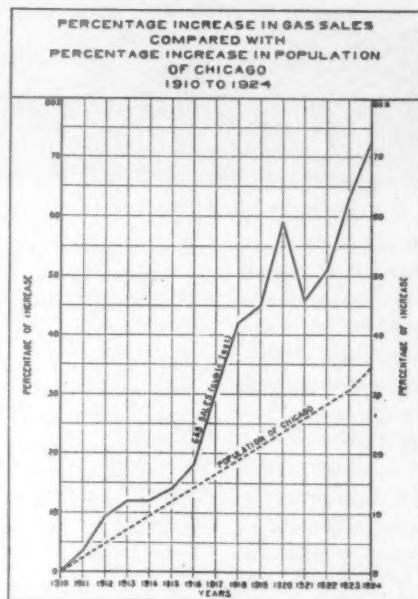
This briefly is the scheme we have adopted. I do not claim that it is altogether original, as several of the freezing works and some business firms have similar schemes in operation; but I am given to understand that ours is the most perfect, having had the advantage of the experience of others.

The Story of "The Peoples" For 1924

I THINK that we people who run the property would be very much better satisfied if the owners of the property would take more part in the annual meetings and be then just as loud in their statements as they are when things are not running quite so well," said Samuel Insull in his last report to the stockholders of The Peoples Gas Light and Coke Co.

"I believe it would be better for them and better for their property, and they probably would know more about it, if they did so. But it is the practice the world over, that as long as people are receiving satisfactory dividends, they never have any complaint to make against the management. It is only when business conditions are such that dividends have to be curtailed or stopped that people seem to take an interest in what they own."

However this may be, The Peoples Gas Light and Coke Company are seeing to it that neither their stockholders nor their customers have any excuse not to be interested in the affairs of the company. The Year Book, covering 1924, is well up to the standard set in previous years, and in addition sets a new record for



New Uses for Gas Are Behind This Showing. While Population Increased About 34 Per Cent, Gas Sales Increased Percentagely More Than Twice That.

completeness of information. A number of interesting things have happened in the course of Chicago's gas service during the past year, and other projects of considerable importance are under way.

The high spot, according to the Year Book, was the restoration of the eight per cent dividend rate on the capital stock of the company. It was noticed that the company was "over the brow of the hill" in its climb from the low level of no dividends whatever only a few years back.

"All the factors in the situation imply that The Peoples Gas Light and Coke Company is now in position to make full use of the advantages arising from the new and larger fields which, industrial economists agree, are opening up for the gas business," the Year Book says.

"The forecast is especially auspicious in this year of 1925, in which occurs the 75th anniversary of the coming of gas service to Chicago and Illinois.

"The way the gas business has been growing in Chicago in comparison with the population growth, especially since 1916, is graphically illustrated in the above



Perpetually Pointing the Way to Cleanliness

chart. While the population has increased about 34 per cent since 1910, our gas sales have increased percentagely more than twice that, or about 72.5 per cent.

"Both gross and net earnings were the highest ever recorded except in the 'peak' year of 1921, when average rates paid by users of gas were more than 20 per cent higher than the average rates of 1924.

"The 24-hour output record of 128,764,000 cu.ft. was made on January 5, 1924. That amount of gas supplied to the people of Chicago in one day was enough for the average needs of a city of 145,000 population for a month—enough for a city like Springfield, Mass., Fort Worth, Tex., or Des Moines, Ia. It was about 42 per cent above the normal 24-hour output for Chicago just before the cold wave hit the city the night of January 4. In other words, the company was called upon, practically without notice, to increase its normal output by 42 per cent within 24 hours—and did it.

"The new one-hour output record was set on Thanksgiving Day, November 27, 1924—13,384,000 cubic feet of gas delivered between noon and one o'clock for cooking the Thanksgiving dinner. That one-hour Chicago output would be enough for the average 24-hour supply in a city of 413,000—a city like Minneapolis or New Orleans.

"The January 5th output record interestingly illustrates the growing tendency

in Chicago to use gas whenever extra heat is needed in the home—a tendency that should naturally lead to heating the home with gas all the time. That record-breaking January 5th was a Saturday, when industrial plants using gas were mostly shut down. It is therefore a fair inference that the abnormal demand for gas was due to need of it to help out the regular home heating plants.

"This inference is strengthened by the experience of June 8, 1924. The highest one-hour output on record up to that time (afterward broken on Thanksgiving Day) was registered on that day, although high outputs are unusual in June. It was registered apparently because it was a wet, dark cold Sunday, with home heating plants mostly shut down since May.

"The sales of gas for industrial purposes tend increasingly to justify the expression that it is "The Modern Fire." Some figures, furnished without solicitation by a firm that purchased a gas-fired equipment for hardening steel machine parts, will demonstrate how gas, while having a higher 'first' cost, turned out the product at a very much lower 'final' cost than the competitive fuel which, in this case, was oil. This firm's itemized cost comparison was as follows:

	Oil	Gas
Fuel	\$1.38	\$2.36
Labor	1.51	.44

Carbonizing material	3.72	.38
Clay03	.00
Deterioration of boxes	2.88	
	\$9.52	\$3.18
Number of shafts carbonized	144	200
Cost per 100 shafts	\$6.61	\$1.59

*No boxes needed.

"Another firm's cost chart shows the total cost of enameling 100 square feet of sheet metal. Manufactured with coal, the cost was \$1.50 and with gas, 34 cents.

"Our industrial department closed some very large contracts in 1924. And they embraced an astonishing variety of business enterprises. Among the larger ones were packers, food products makers, automobile plants, automobile appliance plants, bakers, corn manufacturers, printers, enameling firms, newspapers, lithographers, clothiers, coffee roasters, rivet heaters and many others.

"Each of these concerns demands a supply of several million cubic feet of gas annually. Four of the larger will require 345,000,000 cu. ft. a year, it is estimated.

"Relations with customers are excellent and may be regarded as reflecting the service policy of the company. Constant watchfulness and effort to improve service and eliminate causes of irritation to customers is a major activity of the company.

"'Better Business' simply is another method whereby the company seeks to improve the service to its customers with a resultant better relationship. Every person working for the company is furnished with a book of 'Better Business' blanks and is asked to report on such blanks any gas service improvements suggested by a customer and any questions asked relative to details of the company's operation which the employee cannot authoritatively answer.

"The company has an award system for workable suggestions submitted by employees. This system was reorganized last June and in spite of the fact that it has been operating only six months, 101 sug-

gestions were accepted and a total of \$1,060 awarded. The large number of suggestions offered demonstrates the lively interest being taken by the employees in the affairs of the company.

"The Home Service Department has just completed its third year of service to the women of Chicago. Five of the present Peoples Gas Stores have auditoriums connected where home service lecture-demonstrations are given for the benefit of housewives in the neighborhood.

"During the year there were thirty deaths among those in active service. Life insurance—the annual Christmas gift from the company to its employees—was paid to the families of these thirty employees. It amounted to \$35,100. Twenty-five of the thirty had subscribed for the additional insurance offered by the company at the 'group' rate and their loved ones received a total of \$29,000 additional insurance.

"Twenty-seven employees were retired with annuities in 1924. Their average age was 60 years and they had been working for the company an average of 27½ years."

ROCHESTER APPOINTMENTS

THE APPOINTMENT of E. C. Scobell as general auditor of the Rochester Gas and Electric Corporation and of F. H. Patterson as auditor of that company has been announced. Both are active in A. G. A. committee work. Mr. Scobell, besides being the representative of the Empire State Gas and Electric Association to the national organization, is a member of the Customer Ownership Committee and of the Committee on Relations with Customers. Mr. Patterson is a member of the Managing Committee of the Accounting Section.

WITH THE APPOINTMENT of J. C. Collins as treasurer of the Rochester Gas and Electric Corporation, the office of the treasurer has been moved from New York to Rochester. Mr. Collins, who has been auditor and secretary of the Rochester Company since 1907 and of the New York State Railways since 1909, will sever his connections with the latter and devote his entire energies to Rochester. He is a member of the A. G. A.

Gasification at the Mine To Solve Fuel Problem



Arthur D. Little

ARTHUR D. LITTLE of Boston is chairman of the American Committee on Economy of Fuel and Economy of Raw Materials which presented an exhaustive report at the third biennial meeting of the International Chamber of Commerce at Brussels, June 21 to 27. Other members of the committee are W. T. Coe, manager, Consolidated Coal Company, London; C. E. Lesher, editor, *Coal Age*; Van H. Manning, director, research department, American Petroleum Institute; George Otis Smith, director, United States Geological Survey; and Thomas H. Watkins, president, Pennsylvania Coal and Coke Corporation, New York.

Radical changes in the use of fuel, necessitated by the approaching exhaustion of the domestic petroleum supplies, are foreseen by the committee. The directions in which developments may come, as outlined tentatively by the committee, are as follows:

USE OF COAL AT MINES

"Use of coal at the mines, there to be subjected to complete gasification or to carbonization, with complete by-product recovery. The gas that results to be transmitted under high pressure to the point of use where this point is not too distant. The coke to be used for the generation of electricity, to be transmitted at high tension to the point of use. Shipments from the mine plant to be mainly in the form of coke or coke briquettes.

"Electrification of railroads, using where possible hydro-electric power.

"Linking together of great central stations in a general electrical network, with high-tension transmission.

"Domestic heating from central plants or by gas or coke.

"Large use of gas for industrial heating from gas generated at the coal mines. Where this is not possible, use of coke.

"Power in industrial plants to be electrical from central-power stations linked to the general electrical network.

"Much larger development of water power.

INCREASE OF DIESEL ENGINES

"Abandonment of the use of petroleum products for domestic heating, for industrial uses and for fuel on railroads.

"Increased use of Diesel engines on vessels, replacing oil-burning industry.

"Development of the shale-oil industry.

"Further improvement in prime movers, and especially in the automobile engine.

"Large steam plants to have coal-processing plants connected with them, coke being burned as fuel, gas distributed as fuel for domestic and industrial uses and with full by-product recovery. Exhaust steam to be used for domestic heating as far as possible.

"Abandonment as far as possible of small gas plants. Foolish antiquated standards for heating requirements abandoned. Full use of gas from the mines, from blast furnaces and by-product coke-oven plants.

"Improved methods of refining petroleum, with the special object of more complete utilization of the fractions now comprised in fuel oil, particular care being given to the manufacture of lubricants and fuel for internal combustion engines.

"The United States has within its borders the largest supply of fuel in the world. Within a few decades nothing will be left except the various forms of coal. Imports, if possible, of liquid fuels may postpone their exhaustion for several decades, but it seems quite probable that by the year 1950 much the greater part of natural liquid and gaseous fuels will have practically disappeared. Present methods of using coal are wasteful; new methods of developing liquid and gaseous fuel from coal, by economical methods, are becoming more and more urgent. The vast resources of fuel in oil-shale reserves are untapped, awaiting the time when they can be mined and marketed economically.

"Large sections of the United States have for a long time been partly too wholly dependent on natural gas for fuel. The magnitude of the supply and its use are not generally known. In 1919, it was estimated that the consumption of natural gas in the United States was about one and one-half times that of artificial gas. It furnishes the most pitiful example of waste of fuel known. More gas has been wasted than has ever been used. The most ideal of all fuels, its use has been most careless.

"It must be remembered that fuel is, after all, simply the result of heat received by radiation of the sun during past ages. Any procedure, therefore, which will replace the fuel by utilizing the present radiant heat from the sun will be a great economy.

"Attempts have been made to utilize the heat of the sun directly by concentration of the sun's rays on some form of boiler and using the steam formed in a steam engine. Such attempts have been uniformly found to be impracticable."

Utilities Meet Obligation In Accident Prevention



Chas. B. Scott
of Chicago, chairman of the Accident Prevention Committee of the American Gas Association, was one of the principal speakers at a safety conference recently called by the Department of Labor and Industry of the State of Pennsylvania at Harrisburg.

"Public utilities", he said, "have a greater concern in accident prevention than any other industries, due to their very close and frequent contact with the public. This is especially true of transportation companies, and equally true, although perhaps in a somewhat less degree, of electric, gas, telephone and other companies rendering service to the public."

"These service corporations have very promptly appreciated the necessity for public safety, not only with respect to any hazards for which such companies might be responsible, but for public safety generally, and have been influential in creating in the public mind a knowledge of the importance of the public safety problem and an active public interest in its solution. These public utility companies are not only giving support to organizations engaged in public safety work, but they are themselves carrying on the work in many of our cities, towns and villages by assigning competent members of their staff for such purposes. Such a course of civic duty is, and should be, reflected in better and more satisfactory public relations, just as safety work within the industry contributes to better relations between the management and the employees."

The part which some of our national public utility associations have had in promoting safety of operation of public service companies is not generally recognized. Conspicuous among these are the American Railway Association, National Electric Light Association, American Electrical Railway Association and American Gas Association. Each of these has for many years maintained active committees which have rendered very helpful service to the respective memberships. Almost from the inception of the industrial safety movement, the A. G. A. has provided safety or accident prevention committees made up from the best available volunteers employed by members. These committees are charged with the duty, first of creating an interest in the

subject with the management of gas companies, and later recommending plans based upon proper research for carrying on accident prevention work within the properties or by the corporations with the public.

"Each year these committees have promulgated findings both with respect to the safety of the employees and the public, which have been helpful to the industry. One of these outstanding accomplishments of the American Gas Association is the work which has been done in a scientific study and report on resuscitation from carbon monoxide asphyxiation. In 1921, a Resuscitation Commission composed of eminent physiologists made a very thorough research and report of this important subject. This commission was appointed, sponsored and financed by the American Gas Association, and its findings have not only been adopted by that Association, but by many other interested national bodies.

"The conclusions of this commission were in favor of the Schafer method, a manual means, commonly known as the Prone Pressure Method. The commission made it very clear, by the data it submitted, that this manual method was more effective than any of the mechanical devices marketed and for which merit had been claimed. Decisions were reached after thorough scientific experiments with these devices and this method. Since this report has been published and put into practice, experience has demonstrated that the findings of this Commission were practical and effective. The Commission also recommended an inhalator, which had been developed by members of the commission during the study of the subject which is very beneficially used supplemental to the manual method. This respiratory device supplies the lungs with a combination of 95% oxygen and 5% carbon dioxide mixture, which relieves the blood of the carbon monoxide poisoning which accompanies asphyxiation from carbon monoxide. The Prone Pressure Method and the use of the inhalator has saved many lives of employees and the public, as is evidenced by the awards of McCarter Medals by the American Gas Association to employees who have restored other employees or one of the public who had apparently succumbed to gas asphyxiation. This medal is provided and sponsored by Thomas N. McCarter, vice-president of the Public Service Corporation of New Jersey, for the purpose of expressing deserved appreciation for the saving of life and also that the public may be better informed of the merits of the resuscitation method successfully employed.

"Walter R. Addicks, vice-president of the Consolidated Gas Company, New York, to promote interest in safe service in the gas industry, has provided for award by the association, the "American Gas Association's Meritorious Service Medal" in recognition of an act showing most meritorious and conspicuous judgment, intelligence or bravery in saving human life either in the plant or works of any gas undertaking or having to do with the handling of the materials of manufacture or of the products manufactured or distributed.

One medal to be awarded each calendar year provided a meritorious act was performed.

"An effort is now being made by Surgeon General Cummings of the United States Health Service Department to standardize the technique of the Prone Pressure Method, so that such organizations as the Red Cross and Bureau of Mines and industries will be in accord in teaching the actual performance of the approved manual method.

"The accident prevention problems of public utilities are not so different from those of other industries as is generally believed. The hazards encountered in employment with these interests are very largely and with few exceptions the same hazards encountered in many other lines of employment. The causes of a majority of the accidents in gas manufacture and distribution are such common ones as handling heavy material, tripping or falling over obstacles, the use of defective or improper tools, cuts and bruises and the usual category of industrial hazards. The outstanding exception is the hazard of gas poisoning, gas explosion and the dangers incident to street excavations. In coal gas manufacture, explosions are most liable to occur in the ovens or retorts or in the purifying boxes and very seldom in the holder. In the manufacture of water gas, these explosions may occur in the machine, in the blast line, at the blower or in the purifying box. Explosions from any of these causes are, however, infrequent, due to improved equipment and practices.

"Progress in organized accident prevention has been retarded by misconception of the proper methods of procedure. This mistake is nowhere quite so apparent as in the over-emphasis given to the physical or plant hazards and the lack of appreciation of hazards involved in an improper selection of men and in laxity with respect to training and supervision. Industrial safety work and public safety work to be successful must recognize the importance of creating an interest in safety and of education in safe practices and habits. Any well organized continuous effort recognizing these factors of mental and physical qualifications and with attention to plant hazards will unquestionably be successful. Any plan, spasmodic in character or without attention to both classifications of dangers, will probably fail.

"The gas industry and its national association are appreciative of every effort designed for the better protection of employes and the public and is ready to give such organizations as yours engaged in this commendable work every assistance, with the sincere hope that the country and the great industries in it may be taught to appreciate and conserve the lives of the people."

IN THE BRIEF PERIOD of fifteen months the Illinois Committee on Public Utility Information reports that more than 1,850 talks were given by utility speakers before an aggregate audience of 262,000 persons. In addition, 35,000 persons visited utility plants, offices or exchanges on educational trips.

Dean Raymond Discusses "Public and Its Utilities"



Wm. G. Raymond

ONE of the most recent books on the public utility industry is that published by John Wiley and Sons, of New York, entitled "The Public and Its Utilities." Dean William G. Raymond of the

College of Applied Science in the State University of Iowa is the author.

Setting out to describe the public utility business in terms easily understood by the average individual, Dean Raymond has turned out a most excellent volume. Fortunately, he does not discuss the history or present status of public utility regulation, nor does he deal in the usual number of scholastic theories and fantastic ideas that infest so many books on our business written by college professors.

Dean Raymond's book is eminently practical and could well serve as a reference volume for those whose knowledge of the intricacies of utility finance and regulatory practice needs to be refreshed. He dwells at considerable length on such subjects as the nature of operating expense, depreciation, rate making and engineers' methods of inventorying and valuing property. Included in the volume are 25 pages devoted to amortization tables and various miscellaneous data of definite value to the student as well as to the experienced utility man.

We believe that Dean Raymond's book will be a valuable addition to the libraries of public utility companies and will be much used by those who wish to keep their knowledge on the trend of management and regulation up to date.

Home Service News from the Field

THE Home Service Department of the Consumers Gas Company of Toronto is just getting up steam, and consequently we are particularly interested in the efficient way in which they are organizing themselves and the womenfolk in their territory.

Before any plans at all were laid, Miss Gladys Eaton, head of the new department, visited a number of gas companies in the States and came more or less under the wing of Miss Swann, chairman of the A. G. A.'s Home Service Committee.

Thus armed with advice and suggestions for equipment, Miss Eaton prepared to flip the first flapjack. The first lecture was scheduled for Wednesday afternoon, April 8th, and the subject, appropriately enough, was "Easter Menus." Miss Eaton was introduced to her first audience by Arthur Hewitt, manager of the Consumers Gas Company, who expressed his earnest hope that the department would quickly find a place and a work to do in the community, the direct object of which was to stimulate and encourage the homemaker.

But we shall let Miss Eaton describe the details of preparation, etc. in her own way.

"While the Home Service Department was being put in order," she writes, "we got out our advertising material. An article was inserted one week before the demonstration on the woman's page of all papers with my picture, announcing the opening of the Home Service Department. On Thursday, Saturday and Monday large announcements appeared on the woman's page of all papers, and on Tuesday the special cut that we are going to use every Tuesday to announce the subject appeared. During the week before the demonstration, the salesmen distributed special invitations to all the ladies whom they visited. They gave these out as though they were giving a special favor.

"For the business girls' class, which I planned to start on April 7, we did no advertising, but we enlisted the manager of the Dominion Express Company on our behalf, and he spoke to one hundred of his girls on

HOME SERVICE
DEPARTMENT

FREE COOKING LECTURE . . .
AND DEMONSTRATION . . .

CONDUCTED BY
Mrs. Gladys Eaton,
DOMINION EXPRESS

Easter
Menus

COME AND BRING A FRIEND
HOME SERVICE AUDITORIUM.
55 ADELAIDE ST.
(CORNER POST OFFICE)

THE CONSUMERS' GAS COMPANY TORONTO

A Standard Ad Gives Good Results Here

the Friday before, and gave us an opportunity to explain it to them. Monday, 44 of these girls enrolled, and their attendance cards were sent to the exchanges of the Bell Telephone Company, and similar ones posted in our own building here. Our total enrollment on the night of April 7 was 118, counting girls from these three companies, and others who had heard of it from their friends.

"Our room is 48' x 37', the platform is 10' x 15' and 8" high. We have two ranges and a cabinet, two tables and a stool on the platform, and a sink just at one side with a screen around it. In the corner at the right of the platform we have a buffet, dining room table and chairs. At each demonstration I set the table attractively with the silver, china and linen, which I bought, and displayed the



Business Girls Learn to Cook for Themselves and the Future

finished products on it. My office is in the back corner, and the whole room is very attractive.

"On Tuesday night we held the first class for business girls; there were 85 girls present. They seemed very interested and asked all manner of questions.

"Wednesday afternoon we had the room packed to the doors with an attendance of 225. We can seat comfortably only about 150. Telephone calls came in before the demonstration asking what the subject was, and what time the demonstration was to be held, and several women called personally to find out about it.

"Tuesday night of this week, we had our second demonstration for business girls, and

1	2	3	4	5	6	7	8	9	10	11	12
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MEMBERSHIP CARD

THE CONSUMERS' GAS COMPANY
(HOME SERVICE DEPARTMENT)

BUSINESS GIRLS' COOKING COURSE
EVERY TUESDAY - 8:00 P.M.

HOME SERVICE AUDITORIUM
56 ADELAIDE ST. EAST

NAME _____ ADDRESS _____

A Careful Record Is Kept of Each Girl's Attendance

the enrollment went up to 131, and the attendance was 86. Yesterday afternoon the attendance was 185, and there were four women here an hour ahead of time, which shows that they are greatly interested.

"I believe we will start early on the formation of another business girls' class for the Fall. We do not advertise this course in any way, and believe the best way is to take it up with the different companies employing a number of girls, and get them interested in it, so that they in turn will take the matter up with their employees.

"Along other lines we have done very little. We hope to start a monthly magazine to be sent out with the gas bills containing only matters of interest to the housewife. We have announced that anyone who wishes to consult me concerning any household problem, or any special diet, is welcome to see me at my office."

ON A RECENT visit to New York, Mrs. Anna Peterson was the dinner guest of Miss Mary Dillon, vice-president of the Brooklyn Borough Gas Company, Miss Marjorie Pidgeon, home service head of that company, and Miss Swann of New Jersey and the A. G. A. Home Service Committee.

"I am enthusiastic about the splendid work Miss Swann is doing in her department," Mrs. Peterson said. "The women like her. They have confidence in the reliable service she is giving them and she is reaching thousands. At the tea they were all so glad to see her and talk to her. It was a pleasure to be introduced as her friend."

PERSONAL MENTION



Franklin S. Wade

FRANKLIN S. WADE, for the past thirteen years superintendent of operations of the Southern Counties Gas Company of California, and a widely known figure in the gas circles of the Pacific Coast, has been made a vice-president and manager of the company by the board of directors. Mr. Wade was also made a director in the organization, replacing LeRoy M. Edwards, who remains as the general counsel for the Southern Counties Gas Company. He is a past president of the Pacific Coast Gas Association and for a number of years has contributed papers of a technical nature before meetings and conventions of that body. He is also a member of the American Gas Association.

GEORGE E. WHITWELL, formerly consulting engineer with the Tacoma Gas and Fuel Company, has been placed in charge of commercial development work in the gas department of the Bylesby Engineering and Management Corporation of Chicago. Mr. Whitwell will assist the operated companies in developing their market for gas service and appliances. With D. J. Young, general manager of the Tacoma Company, Mr. Whitwell is co-inventor of the Young-Whitwell process for the manufacture of carbureted water gas.

P. H. GADSDEN of Philadelphia was recently elected a director of the United States Chamber of Commerce at the annual meeting recently concluded in Washington. As a director of the United States Chamber, a director of the Pennsylvania State Chamber of Commerce and a director of the Philadelphia Chamber of Commerce, Mr. Gadsden enjoys an unusual distinction.

JAMES B. DOUGLAS has been appointed manager of the Insurance Department of the United Gas Improvement Company. This is a new department and includes the life, fire and casualty insurance interests of the company. Mr. Douglas assumes the new position after a service with the company of more than twenty-four years, during which he has been continuously engaged in casualty and welfare work.

GEORGE A. BUBB, formerly connected with the Adirondack Power & Light Company at Glens Falls, has been appointed superintendent of the Rome Gas plant, to succeed A. L. Woollen, officials of the Northern New York Utilities, Inc., announced recently.

THE LETTER BOX

To the Editor of the A. G. A. MONTHLY:

I offer the following comments on the article by Mr. H. Y. Carson, entitled "Recent Improvements in Gas Distribution and Transmission," in your April issue.

On Page 206 Mr. Carson states:

"Serious difficulties are met because the ordinary joints in the mains and services will not, without some alteration, withstand the increase of pressure."

I wonder what he means in this connection by "ordinary" joint? Has he in mind a cement joint, (say) 4" and 6" pipe? If so, does he know that this joint will not stand 60 pounds per square inch?

On Page 207 he states:

"If this test is properly carried out as an addition to the usual hydrostatic test at the foundry of 300 pounds per square inch, full assurance may be had of the bottle-tight performance of the pipe in the finished line."

Does Mr. Carson mean by this that a line which stands an air pressure test in the trench will necessarily remain tight? I have had several experiences, and one of them quite sad, decidedly to the contrary.

In discussing what he calls "The Two-Pipe Distribution System," Mr. Carson does not emphasize, as I think he should, the fact that the economy of one versus two mains on any street depends entirely on local conditions. The problem must be worked out by each engineer for his own situation, and, undoubtedly, has been so treated by many engineers for a long time.

In Table No. 2 on Page 210—I do not understand why valves are included, nor do I understand the figure of 75 cents per foot of service pipe; the labor seems at least twice as high as it should be.

WALTON FORSTALL,
Engineer of Distribution
United Gas Improvement Company.

To the Editor of the A. G. A. MONTHLY:

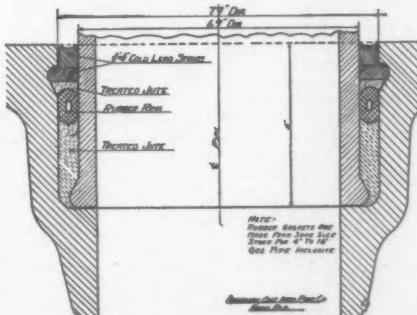
The comments by Mr. Walton Forstall, Engineer of Distribution of the United Gas Improvement Company, of Philadelphia, in reference to my printed discussion of gas distribution systems in the April issue of the A. G. A. MONTHLY is of value, and I trust we might get other prominent men in the industry to give ideas on how to improve upon existing practices.

The use of specially devised rubber rings in bell and spigot joints is what I meant to call attention to in my discussion and I might add that the improved joint is rapidly finding favor among gas men who are faced with the problem of raising the pressures on their existing and future distribution systems.

We find that the rubber ring may be used in a variety of ways, either with the various types of joints that employ cement or those types of joints that employ lead and jute. A good way of constructing this improved gas main however, is to use the materials shown in the accompanying picture which shows an arrangement of materials in a standard A. G. A. No. 1 Bell and Spigot. We can depend upon such a joint remaining tight because of the fact that the rubber ring will tend to swell with age instead of shrink. The scientific reasons for the self-tightening of such joints are given in various articles that have appeared in print from the pen of a noted gas man in England, Mr. Walter Hole. He has cited experiences with rubber that were absolutely confined to bell and spigot gas joints for periods up to fifty years, and he found that instead of the rubber rotting or deteriorating, as it normally would if exposed to the air, it retained its resiliency, and, if any of the light oils or gas reach the structure of the rubber, they are absorbed by it to that balanced point where the swelling of the rubber equals the available space to which it can expand.

To answer Mr. Forstall's second question about the air testing of cast iron pipe at the foundry, I desired in my discussion to bring out the point which so many gas men know; namely, that a water test in pipe does not necessarily reveal gas leakage at high pressure that may develop in the line after it is in the ditch. The addition of the air test on pipe at the foundry is not of great value where only very low pressures are to be used on the pipe in service; but where the pipe is ultimately to be used for higher pressures, as seems to be the tendency in the future, especially in the western and southern portions of our country, then the careful air testing of the pipe before it leaves the foundry is a real help to the gas man who is going to apply a 25 to 100 pound pressure to the finished line in the field.

The points raised by Mr. Forstall about the so-called "Two-Pipe Distribution System," in which I advocated the more general use of



Arrangement of Materials in a Standard A. G. A. No. 1 Bell and Spigot.

both parking spaces on each side of the streets for putting gas mains, are well taken.

It is true that many gas engineers have used one or both these spaces as well as alleys and other locations for cutting down the vast number of feet of service pipe laid under street pavement. But it seems to be a worthwhile analysis to determine the very great initial and maintenance cost of services under streets. While my discussion dealt more particularly with the *first cost* of two-pipe versus one-pipe systems, I am of the opinion that the arguments in favor of a more general adop-

tion of the two-pipe system will result from studies of *maintenance costs*. I am well aware of the very uncertain element involved in stating unit costs for doing specific work. However, regardless of whether or not the costs stated in my paper are accurate, the various comparisons made between the single and dual systems of gas distribution will favor the latter.

H. Y. CARSON,
Research Engineer,
American Cast Iron Pipe Company

Membership Quota Passed in Record Drive

THE large number of new members who have joined the Association since the beginning of the year is proof, if proof were needed, of the conscious need for cooperative effort on a national scale so far as the gas industry is concerned. This need has always existed, but has recently been awakened by a persistent membership drive on the part of Headquarters. The finest kind of assistance has been rendered by a number of gas companies who have engaged in an extensive educational campaign among their employes, particularly department heads and assistants, to encourage them to affiliate with the national organization.

As a result, and with four months still to go, the A. G. A. has already passed the year's quota for new membership in all four classes which was set by the Finance Committee last October. The holding company quota for the year has doubled, the quota for new gas com-

pany members has nearly doubled, the quota for new manufacturing company members has been passed, and 104½ per cent of the quota for new individual memberships has already been obtained.

The Finance Committee estimated in October that it would not be safe to count on more than \$1,800 in dues from new individual members during the fiscal year; yet, with only two-thirds of it gone, approximately \$2,200 have been obtained from this source. During the last two months more than 500 application blanks have been sent to those requesting them.

New memberships received since the last convention, including those listed below, consist of four new holding companies, seventeen new gas companies, twenty-nine new manufacturer companies and 327 individuals. The following applications were received during the period of May 15 to June 15:

GAS COMPANY MEMBERS.

The Central Arizona Light & Power Company, Phoenix, Ariz.

MANUFACTURERS

**Simplex Heater Control Co.
Waite & Davey Co., Inc.
Automatic Safety Appliance Corp.**

St. Paul, Minn.
Long Island City, N. Y.
New York, N. Y.

INDIVIDUALS

Walsh, Wm. J.
Shiels, John L.
Fitzpatrick, Peter J.
Elderkin, Charles
Collins, Charles
McCarthy, James T.
Greenwood, Josephine I.
Clair, Edward P.
Creighton, Ann L.
Callan, Edward A.
Currie, Robert O.
Clark, Robert H.
Coxe, James R.
McKean, Josiah S., Jr.
Atkinson, Vernon L.
Glaeser, Frederick
Gallup, Charles F.
DeVed, Horace W.
Herbst, George J.
Knight, Carl Halsey

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Gere, Elmer L.
Pierson, Walter
Agneas, Olaf S.
Nelson, E. David
Ganter, William
Margrander, E. C.
Duffield, Earl V.
Bonus, Edward V.
Power, John B.
Blomgren, Herbert
Chesler, Benjamin A.
Meyer, Herbert H.
Brown, P. DeWitt
Gernhardt, Edward A.
DeRusha, John Gibson
Callahan, Wm. J.
Pegg, William
White, Harry T.
Ritter, Morris
Kaplan, Max
Dederick, Loren E.
Daly, Thomas J.
James, J. Daley
Ahlers, John A.
Seymour, Robert Neil
Neale, John H.
Weissbach, Frederick
Hofner, John A.
Binz, Frank A.
Jones, David R.
Schmidt, George J.
Keressey, James F.
Dewey, Frank R.
Rose, Ferdinand D.
Simms, Percy F.
Maxton, S. A.
Burger, Cornelius
Eberspeacher, Harry E.
Foble, A. J., Jr.
Kemmerle, Harry
Morris, Francis A.
Kelly, John F.
Robinson, Herbert J.
Devlin, Edward J.
Martin, James W.
Townsend, Alfred F.
Stockstrom, Arthur
Stotz, Louis
Ford, H. Stanley
Marshall, Robert Bruce
Reagan, William J.
Halmos, Eugene E.

Grieve, John
McIntyre, Victor Stanley
Murfit, Wallace G.
Frey, Arthur C.
Carter, Ralph S.
Lambert, William J.
Parker, Harry S.
Blue, L. E.
Zorn, G. J.
Belton, A. R.
Flowers, H. B.
Cleary, Charles Norman
Fry, George W.
Hagman, Arthur M.
Strauss, E.
Gifford, Robert Lindley
Duff, Alan D.

Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
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Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Consolidated Gas Co. of N. Y., New York, N. Y.
Standard Gas Light Company, New York, N. Y.
Public Service Electric & Gas Co., Hackensack, N. J.
Public Service Electric & Gas Co., Bayonne, N. J.
Public Service Electric & Gas Co., Bayonne, N. J.
Public Service Electric & Gas Co., Burlington, N. J.
Public Service Electric & Gas Co., Hoboken, N. J.
Public Service Electric & Gas Co., Burlington, N. J.
Public Service Electric & Gas Co., Hoboken, N. J.
Public Service Electric & Gas Co., Newark, N. J.
Public Service Electric & Gas Co., Burlington, N. J.
Public Service Electric & Gas Co., Burlington, N. J.
Public Service Electric & Gas Co., Burlington, N. J.
The Brooklyn Union Gas Co., Brooklyn, N. Y.
Western United Gas & Electric Co., Aurora, Ill.
American Stove Co., St. Louis, Mo.
Own Your Home Exposition, Inc., Philadelphia, Pa.
R. H. Beaumont Co., Detroit, Mich.
Republic Iron & Steel Co., Youngstown, Ohio
Utica Gas & Electric Co., Utica, N. Y.
Barclay, Parsons, Brinckerhoff, Klapp & Douglas, New York, N. Y.
Detroit Graphite Co., New York, N. Y.
Kitchener Light Commission, Kitchener, Ont., Canada
Bucks County Public Service Co., Newtown, Pa.
Worcester Gas Light Co., Worcester, Mass.
Malden & Melrose Gas Light Co., Malden, Mass.
St. Lawrence County Utilities, Inc., Ogdensburg, N. Y.
Muskegon Traction & Lighting Co., Muskegon, Mich.
New Orleans Public Service, Inc., New Orleans, La.
Consolidated Gas Co. of N. Y., New York, N. Y.
West Texas Utilities Co., Abilene, Texas
Jacksonville Gas Co., Jacksonville, Fla.
Tirrell Gas Machine Lighting Co., New York, N. Y.
Fall River Gas Works Co., Fall River, Mass.
Fall River Gas Works Co., Fall River, Mass.

Boothby, Everett J.
Holden, R. S.
Erlach, Paul Alvin
Bracken, Joseph L.
Decket, Joseph P.
Wrynn, Simon T.
Keller, August J.
Whitson, William W.
Swinsky, Joseph
Mooney, John T. A.
Weiss, Charles A.
Haslett, Harry H.
Saffery, William E.
Raczkiewicz, Joseph T.
McCaughn, James
Demarest, Harry A.
Theisson, George A.
Verderber, Joseph F.
Tracy, Joseph H.
Wert, Alden M.
Patterson, James
Foy, William J.
Lynch, Frank P.
Newell, Wm. K.
Folks, Leslie E.
Daily, Edward E.
Miley, Michael J.
Lane, John S.
Rockefeller, Robert G.
Jennings, Richard J.
Schooley, Benjamin
Power, John T. J.
Sullivan, John J.
Reimers, Frank J.
Haby, Henry Emil
Schleuning, Theodor Hart
Hutchins, Henry
McOwan, Edward Dickson
Smith, Harold B.
Crofton, Edward
Boylan, Adam J.
Brown, Charles A.
Weber, Frederick R.
Walsh, Michael J.
Swauhaus, John Henry
Springmeyer, George F.
Patterson, Donald Wallace
Hughes, Harry B.
Haynes, Herbert G.
Foster, Samuel W.
Degenhardt, William O.
Corr, George F.
O'Donnell, John J.
Bates, Edmond Elkins,
Beach, Brewster S.
Whittemore, Lester B.
Conner, Thos. L.
Munk, William E.
White, William E.

Good service implies meeting the reasonable wishes of the public as far as the income of the company will permit.

Affiliated Association Activities

Southern Gas Association



S. E. Linton

The seventeenth annual convention of the Southern Gas Association, held at Wrightsville Beach, N. C., June 9, 10, 11, 1925, was a delightful and profitable meeting in all respects. The president, William H. Taylor, occupied the chair and also delivered an address expressing optimism for the future of the industry. He also appealed for greater activities by the individual members in association

affairs. The Southern Gas Association has obtained many new members during the year making it one of the largest of the associations affiliated with the American Gas Association. The papers delivered proved to be fine contributions and were as follows: "Heat through the Ages", Alexander Forward, New York, N. Y.; "Gas Distribution", C. J. Weinmeister, Atlanta, Ga.; "Campaigning for Gas Ranges", A. E. Timberlake, Lynchburg, Va.; "Increased Sale of Gas", E. D. Brewer, Atlanta, Ga.; "Industrial Gas", F. F. Cauley, Chicago, Ill.; "Small By-Product Oven Coal Gas Plants", Harold J. Rose, Pittsburgh, Pa.; "Gas Production", C. E. Reese, Bluefield, W. Va.; "Office Organization", G. L. Harris, Chicago, Ill.; and "Accident Prevention", J. B. Douglas, Philadelphia, Pa.

The following officers were elected for the new year: President, S. E. Linton, Nashville, Tenn.; first vice-president, A. E. Merchant, New Orleans, La.; second vice-president, S. W. Brown, Florence, S. C.; and secretary-treasurer, J. P. Connolly, Charleston, S. C.

It was decided to hold the next convention of the association in New Orleans, La., March 15, 16, and 17, 1926.

Attention is called to the Southern Gas Association Meter School to be held in Atlanta, Ga., August 4, 5, 6, 1925. The Georgia Railway & Power Company's fully equipped laboratory and meter shops will be used for lectures and shop practice. Special rates have been arranged at the Henry Grady Hotel. Further information can be obtained regarding the meter school by writing the chairman of the committee, Charles Leech, Macon Gas Co., Macon, Ga.

Pacific Coast Gas Association

The Pacific Coast Gas Association held its third sectional meeting of the year in Oakland, Calif., June 5, 1925. While these meetings are designed to be of largely local interest, they

always attract members from various parts of the Pacific Coast. The Oakland meeting was no exception, as gas companies and appliance houses from Portland, Oregon, to San Diego, Calif., were represented. The attendance was well over 250.

The meeting was a one-day affair, but every minute of the day was occupied. President E. L. Hall called the first session to order about 10 a.m., turning it over to R. S. Fuller, distribution engineer of the Pacific Gas and Electric Company, for a discussion of fittings. Several Coast gas companies now have facilities for testing all fittings purchased, and the number found to be defective reaches alarming proportions. The meeting adjourned at noon to witness a demonstration of brazing cast iron pipe.

The afternoon session was devoted in part to a discussion of the home service manual presented in tentative form by C. R. Miller of Portland, chairman of the Home Service Bureau. The manual is designed to be a text book on gas appliance installation and maintenance and will fill a long felt need among gas appliance dealers. The outline of the manual given by Mr. Miller was enthusiastically received and the committee was authorized to proceed with its work of gathering written suggestions from qualified sources.

Intimately connected with the Manual was the work done by the Committee on Municipal Ordinances. President Hall briefly outlined the advantages that would accrue from having a fair and thorough series of regulations in regard to gas installations adopted uniformly by all Pacific Coast cities. Mr. Miller has also acted as chairman of the Ordinance Committee and some time was spent in the discussion of the tentative model ordinance submitted. This was endorsed and the committee will solicit written criticism as to details.

One provision in the ordinance created an exceptional amount of comment. Nowhere else in the country is gas househeating so highly developed as on the Pacific Coast, and the large demand for heaters, coupled with the oftentimes crude construction of homes permitted by the warm climate, has led to the marketing of a few gas appliances which are not deemed safe. A clause was therefore inserted in the ordinance prohibiting the marketing of appliances not certified by some recognized authority. While this clause met with unanimous approval, there was some difference of opinion as to the ways and means of making it most effective. This problem was left in the hands of President Hall with the hope that some plan could be worked out which could be made immediately effective and which would meet with the approval of all elements in the association.

The day closed with an informal dinner and

entertainment. One of the features of the dinner was the presentation of McCarter medals and certificates to W. A. Bahr, O. L. Dickinson, and J. E. Fields. Certificates were presented to Ray Kutter, Pete Saeti, Daniel A. Kirkpatrick, Horace Oftedal and Alfred E. Englebright, all employees of the Pacific Coast and Electric Company. The presentation was made by Wigginton E. Creed, president of that company, on behalf of the American Gas Association.

Gas Sales Association of New England

This association is conducting two contests among the members at the present time. The first is for the best window display of heating equipment made between now and October 1st and carries a first prize of \$100 and a second prize of \$75. The winners are to be determined from 7" x 9" photographs and descriptions of not over 500 words. The number of photographs or displays submitted by an individual company is not limited. Sales ability as indicated by the condition and character of photographs and descriptions submitted to be considered in the awarding of prizes. The prizes will be awarded at the November meeting of the association to the Commercial Department or stores of the winning gas companies, to be distributed or allocated among their salesmen by them.

The second contest offers two \$50 prizes for sale of the most house-heating equipment during 1925, first prize going to companies having a special heating rate of less than \$1.00 per M., and the other prize to companies whose rates are \$1.00 or over. Both the number of installations per thousand meters and total sales value of installations made will be taken into account by the Committee in making awards.

The two contests are open to any New England gas company. Further information can be obtained by writing M. Bernard Webber, chairman, 150 Congress St., Room 404, Boston, Mass.

Indiana Gas Association

At a meeting held by the Board of Directors of the Indiana Gas Association on May 15, it was decided to hold the annual meeting at West Baden Springs Hotel, West Baden, Indiana, Monday and Tuesday, September 21 and 22, 1925. It is anticipated that the papers to be presented at this meeting will cover subjects of vital importance to the gas industry. Special attention will be given to house heating and industrial installations. On account of the many opportunities for entertainment at West Baden, it has been decided to omit the usual banquet. However, the entertainment committee will make arrangements for individual contests such as bowling, billiards, etc.

Canadian Gas Association

In addition to the splendid papers announced in the June MONTHLY to be presented at the annual convention of the Canadian Gas Association in Quebec, Canada, July 15 and

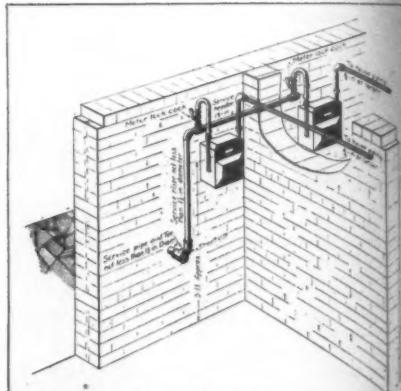
16, 1925, extensive entertainment features will be provided. There will be a dinner on the evening of July 15, an auto trip for ladies on the morning of July 16, and a general sightseeing trip in the afternoon. Gas men are again reminded that the Canadian Gas Association extends a hearty invitation to all its American friends to attend this convention. Hotel reservations should be made at the Chateau Frontenac Hotel.

Pennsylvania Gas Association

President W. G. Murfit has announced that the mid-year meeting of the Pennsylvania Gas Association will be held in Scranton, Pa., on December 7, 1925. An early start in the preparation of the program for this meeting has been made.

Empire State Gas and Electric Association

The annual meeting of the Empire State Gas & Electric Association will be held at the Lake Placid Club, Lake Placid, New York, on Thursday and Friday, October 1 and 2, 1925. A special committee on arrangements has been appointed consisting of Messrs. Ruffner, De Long and Scobell.



SKETCH SHOWING METHOD OF INSTALLING SERVICES AND METERS IN SEMI-DETACHED HOUSES.

THE CONSUMERS' GAS CO. OF TORONTO, CAN.
DEPARTMENT OF DISTRIBUTION

APPROVED, APRIL 21, 1925.

TORONTO, APRIL 21, 1924.

J. B. [Signature]
END OF DOCUMENT

A leaf from a 20-page Booklet and File Folder for Architects, Builders, Plumbers, Gas Fitters, etc. Issued by the Consumers Gas Company of Toronto. The idea is similar to that of the Architects' Folder which is being distributed by the A. G. A.

GENERAL

CHAIRMEN OF GENERAL COMMITTEES ORGANIZED TO DATE

Accident Prevention—C. B. Scott, Chicago, Ill.
Amendments to Constitution—Wm. J. CLARK, Yonkers, N. Y.

American Engineering Standards Committee, Representative on—A. H. HALL, New York, N. Y.—(Alternate Representative) W. J. SHERILL, Philadelphia, Pa.

Award of Best Medal—H. C. ABELL, New York, N. Y.
Chamber of Commerce of U. S.—J. B. KLUMPP, Philadelphia, Pa.

Cooperation with Educational Institutions—W. G. GRISWOLD, Philadelphia, Pa.

Customer Ownership—CHARLES A. MUNROE, Chicago, Ill.

Education of Gas Company Employees—B. J. MULALLY, Chicago, Ill.

Entertainment—Wm. J. CLARK, Yonkers, N. Y.

Finance—JAMES LAWRENCE, New York, N. Y.

Gas Safety Code—W. R. ADDICKS, New York, N. Y.

Gas Standards & Service—J. A. PRIEST, Philadelphia, Pa.

General Specifications—A. H. HALL, New York, N. Y.
Geographic Sections—L. R. DUTTON, Jenkintown, Pa.
Managing Committee of Appliance Testing Laboratory—R. W. GALLAGHER, Cleveland, Ohio.

National Fire Protection Association—R. S. DOULL, New York, N. Y.

Nominating—R. B. HARPER, Chicago, Ill.

Rate Structure—EWALD HAAS, Milwaukee, Wis.

Representation on National Joint Committee of Public Utility Associations—D. D. GANNON, Boston, Mass.; H. L. DOHERTY, New York, N. Y.; A. P. LATHEW, New York, N. Y.; P. H. GADDIS, Philadelphia, Pa.; CHARLES A. MUNROE, Chicago, Ill.; WM. L. RAMSON, New York, N. Y.; H. C. ABELL, New York, N. Y.; T. V. PURCELL, Chicago, Ill.

Theft of Gas—H. B. FLOWERS, New Orleans, La.

Time and Place—R. B. BROWN, Milwaukee, Wis.

A.G.A. Booklet Is Basis of Employe Prize Contest



Margaret Leary,
winner of the "Story
of Gas" Prize.

MAKING the best use of every facility at hand seems to be the motto of the Brockton Gas Light Company of Massachusetts, which recently held a prize examination on the A. G. A. booklet, "The Story of Gas."

When the Committee on Education of Gas Company Employes issued its booklet, George H. Priest, general manager of the Brockton Company, wanted every employe in the company not only to read but also to "inwardly digest" the contents of the book. He ordered 400 copies at a cost of \$72, distributed them and issued the following announcement:

The "Story of Gas" is a primer issued by The American Gas Association to make gas company employes familiar in a general way with all branches of gas manufacture and distribution. The book is non-technical and is easy to read. In order to encourage all our employes to read this booklet the company

will give \$50 in prizes for the best four examination papers submitted covering the subjects discussed.

1st prize	\$20.00
2nd "	15.00
3rd "	10.00
4th "	5.00

Examinations will be held at the general office in the evening about one month after the books are distributed. Heads of departments and general foremen will not be allowed to compete. Papers will be judged by a committee of three and marks will be based entirely on the merits of the ideas expressed. Writing, spelling, grammar, etc., will not be considered and ample time will be allowed for answering questions.

This is a book you will want to read anyway. See the head of your department who will give out books and furnish further information.

Following is the examination which was given in connection with the contest. It might well be used as a standard by other companies engaged in employe training work.

BROCKTON GAS LIGHT COMPANY'S EMPLOYES PRIZE EXAMINATION ON THE "STORY OF GAS"

Name Department

Judges: William P. Morton, Mark Fitzmaurice, George H. Priest.

Please number all questions.

Answer as fully as possible.

1. A. Give some reasons why the future of gas is assured.

- B. Who first utilized gas for lighting and when?
- C. When and where was the first gas company formed?
- D. What was the first American city to use gas and when?
- 2. A. What invention was most important in the development of gas heating and cooking appliances?
- B. What invention was most important in gas lighting development?
- C. What is the standard of value usually applied to gas and what does it mean?
- 3. A. Name the principal steps in the manufacture of coal gas.
- B. What are the principal by-products from coal gas?
- C. Why does coal gas not burn on the retorts?
- 4. A. What part does water play in the manufacture of water gas?
- B. What is "blue gas"?
- C. Why is oil used in water gas?
- D. What are the principal by-products from water gas?
- 5. A. What is the power which drives the gas meter?
- B. What causes this power to operate the gas meter?
- C. Describe briefly the working of a gas meter.
- D. How are meter readings automatically corrected?
- 6. A. For what purpose is the greater part of gas in a city like Brockton used?
- B. What are the principal advantages of gas in industry?
- C. Name some of the principal uses for industrial purposes.
- 7. A. Why is coal a wasteful and unscientific fuel?
- B. Why is coke gradually taking the place of coal as a domestic fuel?
- C. What is coke?
- 8. A. Is the gas business a competitive business? Give reasons.
- B. What is the most valuable part of a gas company's property?
- C. What is the estimated investment of the gas industry in the United States?
- 9. A. Who owns gas companies?
- B. When a gas company wishes to make additions to its plant, where does the money come from?
- C. Why is it necessary for a gas company to earn a fair return other than to pay dividends?
- 10. A. How are gas companies regulated?
- B. Can a gas company fix its own rates?
- C. What happens when the price of gas is too high?

Four prizes were given ranging from \$5 to \$20, and four other employees received honorable mention.

Offers Scholarship in Gas Engineering at Johns Hopkins

TWO scholarships in gas engineering in Johns Hopkins University have been offered by the Consolidated Gas Electric Light and Power Company, according to an announcement. The scholarships, which are worth \$350 a year each, are open to residents of Baltimore and vicinity who can meet the University requirements for entrance. Applicants may qualify for admission by graduation from an approved high school, or by examination to be held September 14 to 17, 1925.

The appointments to these scholarships will be for one scholastic year. The holders will be eligible for reappointment from year to year if they conform in character, industry and ability with the standards and requirements of the University.

The course in Gas Engineering at Johns Hopkins University was originally established by the Baltimore Company in cooperation with the Southern Gas Association. The Gas By-Products Laboratory of the University is probably the only complete plant of its kind in America, and is available for research work for students desiring to follow gas engineering. The Department of Gas Engineering makes an especial effort to maintain intimate contact with the various gas and fuel industries in and about Baltimore, which has long been a center for advanced developments in this field. Cooperative arrangements permit the use of the facilities of several of these industries for instruction and research.

MRS. FISHER WITH ERIEZ CO.

MRS. LUELLA M. FISHER, formerly in charge of the Home Service work of the East Ohio Gas Company, has taken the position as Home Service Director of the Eriez Stove and Manufacturing Company of Erie, Pa. She also assumes the management of the Eriez Stove Company Department at the Furniture Mart, 6101 Euclid Ave., Cleveland, Ohio. Mrs. Fisher organized the Home Service Department of the East Ohio Gas Company six years ago. She is well known among church and club organizations, and also is a member of the Home Service Committee of the American Gas Association. In her new capacity she will be able to assist other companies in the organizations of Home Service Departments, as it is her plan to make a tour of the company accounts.

Good service cannot be created by even the best of rules and regulations. It must come spontaneously from the heart and mind of the employee.—Year Book, Peoples Gas Light & Coke Company.

ACCOUNTING SECTION

H. C. DAVIDSON, Chairman

DeWITT CLINTON, Vice-Chairman

H. W. HARTMAN, Secretary

MANAGING COMMITTEE—1925

ARMSTRONG, J. J., Toronto, Ont., Canada. (Canadian)
BISCHOFF, W. H., Savannah, Ga.
BLANCHFIELD, JOHN L., Brooklyn, N. Y.
CARMICHAEL, E. T., Elkhart, Ind. (Indiana)
CASELL, W. H., Baltimore, Md.
CHALMERS, W. D., Baton Rouge, La. (Southwestern)
CAUTON DeWITT, Worcester, Mass. (N. E. Assn. Gas Engrs.)
CONOVER, J. L., Newark, N. J.
DOERING, W. A., Boston, Mass.
EKLATCH, PETER, Hammond, Ind.
HAAKE, EWALD, Milwaukee, Wis. (Wisconsin)
HALL, H. B., East Braintree, Mass. (Gas Sales)
HALL, ISAAC S., Boston, Mass.
HEINE, J. W., Philadelphia, Pa.
JAMES, F. M., Aurora, Ill. (Illinois)
KELLER, A. R., Syracuse, N. Y.
KETTE, ADAM, Detroit, Mich.
LAWLAR, H. J., Philadelphia, Pa.

LAWRENCE, JAMES, New York, N. Y.
MCKANA, G. E., Chicago, Ill.
MILLERS, W. J., New York, N. Y.
PAGE, H. M., Charleston, S. C. (Southern)
PATTERSON, F. H., Rochester, N. Y.
PETTES, W. H., Newark, N. J. (New Jersey)
PLATT, C. W., Portland, Ore. (Pacific Coast)
PORTER, EDWARD, Philadelphia, Pa. (Pennsylvania)
POTTER, O. F., Newark, N. J.
PRESHAN, E. P., Yonkers, N. Y.
REESE, J. G., Baltimore, Md.
REYNOLDS, A. E., Springfield, Mo. (Missouri)
SAUER, W. A., Chicago, Ill.
SCOREL, E. C., Rochester, N. Y. (Empire State)
SHARING, R. B., Sioux City, Iowa. (Iowa)
SHORT, A. F., Providence, R. I.
SPEAR, M. H., Flushing, L. I., N. Y.
TOSSELL, A. L., Chicago, Ill.
WASHER, O. E., Ithaca, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Analysis of Gas Company Statistics—H. J. LAWLAR,
Philadelphia, Pa.
Customers Accounting Committee—J. L. CONOVER, JR.,
Newark, N. J.
Insurance—J. G. REESE, Baltimore, Md.
Nominating—W. A. SAUER, Chicago, Ill.

Relations with Customers—W. A. DOERING, Boston,
Mass.
State Representatives—A. L. TOSSELL, Chicago, Ill.
Undistributed Structural Costs—J. I. BLANCHFIELD,
Brooklyn, N. Y.
Uniform Classification of Accounts—W. J. MILLERS,
New York, N. Y.

Where Cash Deposits are Required for Payment of Bills

By I. R. Jones, Alabama Power Company, Birmingham, Ala.

PERHAPS the first thought of many applicants for electric and gas service is—why do public utilities require cash deposits as security for the payment of their bills?

One reason for this requirement is the great variation in the financial status of the applicants for service.

Where deposits are required from customers, a form of certificate of deposit or receipt to be given to the customer is essential. For this purpose a form similar to Exhibit A—Customers Deposit Receipt—would be satisfactory for the size and type of office under consideration.

While the form suggested carries a

stub for use as an office record, it should be borne in mind that in a larger office the receipt could be prepared on a typewriter and a carbon duplicate of the receipt substituted for the office stub. Similarly, a carbon triplicate on heavier stock could be prepared simultaneously, which might be utilized as a card ledger record of customers deposits.

It is imperative for audit purposes that the customers deposit receipts should be numbered in consecutive order, that the receipts should be completed in proper sequence as to numbers, and that all numbers for receipts issued should be accounted for.

Except possibly in the largest offices,

By way of explanation, it may be mentioned that, while the arguments in favor of obtaining deposits would not be applicable in the northern states, they are particularly applicable in this territory.—Author's Note.

where the items are very numerous at certain times of the year, the customers' deposits should be itemized in the Cash Received Record, or in a subsidiary cash record, in sequence according to receipt numbers.

It is generally found advisable to provide a special column in the Cash Received Record for customers' deposits in order to facilitate compilation of the daily and monthly totals required for control purposes.

While it is customary for public utilities to allow interest at approximately the legal rate on customers deposits held by them, the general practice is to calculate and pay the interest on such deposits only when a refund is requested or when the deposit is to be applied in settlement of a customer's bill. The chief reason for this is that the small amounts involved would not justify the accrual and payment at annual or other intervals of the interest due customers on their deposits.

Upon discontinuance of service and surrender of the original deposit certificate or receipt, it is the general practice to refund to the customer the amount of the deposit, plus accrued interest thereon, after deducting from the total amount due to the customer any amount collectible from the customer for service or other charges.

When application is made by a customer for refund of a deposit, a statement should be prepared on the back of the certificate or receipt to be sur-

rendered by the customer showing all the accounting data relating to the refund; this would include amount of deposit, accrued interest thereon, any amount collectible from the customer for service or other charges that is deductible from the customers deposit and accrued interest, and the net balance payable to the customer.

In order to protect the interests of the utility and at the same time facilitate audit of refunds, it is important that provision should be made on the reverse of the customers deposit receipt for the customer's signature as a formal acknowledgment of the net balance paid to the customer as indicated by the statement of the deposit and accrued interest and off-setting charges.

Deposits refunded require to be entered in the Cash Payments Record, which would ordinarily contain special columns for the classification of such items and for convenience in ascertaining the daily and monthly totals of deposits refunded. These refunds constitute a charge to the control account carried on the financial books under the title of "Consumers Deposits."

In the event of the customer being unable to surrender the customers deposit receipt when making application for refund, a statement of the transaction should be prepared on a special receipt form, on which provision should be made for obtaining the affidavit of the customer as to the reasons for failure to surrender the original receipt.

<p>DEMO-100-LC</p> <p>36111</p> <p>Name: John Doe</p> <p>Address: 123 Main Street</p> <p>City: Brownwood</p> <p>State: TX</p> <p>Zip Code: 76801</p> <p>Account Number: 1234567890</p> <p>Amount Due: \$100.00</p> <p>This is to certify that the above account has been opened with Alabama Power Company and is in good standing. This account will be disconnected for non-payment after 30 days from the date of this certificate.</p> <p>NOT NEGOTIABLE</p> <p>I accept the above conditions.</p>	<p>DEMO-100-LC</p> <p>ALABAMA POWER COMPANY</p> <p>CUSTOMER'S DEPOSIT RECEIVED</p> <p>36111</p> <p>Date: 10/10/01</p> <p>By: John Doe</p> <p>Signature: John Doe</p> <p>ALABAMA POWER COMPANY</p>
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The Company will not contract its service with premises described as defendant's application unless it has been furnished with a copy of the lease or tenancy agreement between the lessor and lessee, and with the rules and regulations of the Company as it exists, and approved by the Board of Directors, and the Company reserves the right to accept or reject any application for service, and no deposit or other amount shall have been paid in full. In case of non-payment of any amount due to the Company, the Company reserves the right to deduct such amount from any deposit or other amount paid in advance, and if there is any balance remaining after deduction, the same shall be returned to the customer. The Company reserves the right to deduct from any deposit or the vendor of the amount to deposit as herein provided transportation and each call made by the Company for service.	
APPLICATION FOR SERVICE	
NAME OF APPLICANT	ADDRESS
TYPE OF SERVICE	TYPE
TELEPHONE NO.	DESCRIPTION OF SERVICE
TELEPHONE NO.	INSTRUCTIONS

Exhibit A—Form of Customer's Deposit Receipt

PUBLICITY AND ADVERTISING SECTION

F. L. BLANCHARD, Chairman

A. W. HAWKS, Jr., Vice-Chairman

CHARLES W. PERSON, Secretary

MANAGING COMMITTEE—1925

BURSTETT, J. M., Philadelphia, Pa.
BURNER, A. W., Hastings, Neb.
BURKE, J. J., St. Louis, Mo. (Missouri)
CAPWALLADER, F. D., Brookline, Mass. (Gas Sales of
N. E.)
CLARK, HARLOW C., Newark, N. J.
COONEY, E. J., Lowell, Mass.
CROUSE, F. W., New York, N. Y. (Empire State)
FISHER, R. E., San Francisco, Calif.
FRANK, M. H., Fond du Lac, Wis.
FRANKLIN, S. J., Millville, N. J. (New Jersey)
GARDNER, E. F., Chicago, Ill.
JANKE, F. A., Ottawa, Ont., Canada. (Canadian)
LAGUE, W. R., Milwaukee, Wis. (Wisconsin)
LIGHTFOOT, JAMES, Vancouver, B. C.
LINGTONTON, R. E., New York, N. Y.

LUCAS, JOHN PAUL, Charlotte, N. C. (Southern)
McKINNEY, C. B., Dallas, Texas. (Southwestern)
MCMAHON, J. J., Cleveland, Ohio.
MULLANEY, B. J., Chicago, Ill. (Illinois)
MYERS, G. L., Portland, Ore.
POTTER, CLYDE H., Los Angeles, Calif.
RAY, DON, San Francisco, Calif. (Pacific Coast)
RICHARDSON, J. S. S., Philadelphia, Pa. (Pennsyl-
vania)
SCRANTON, GEORGE H., Derby, Conn. (N. E. Gas.
Engrs.)
SHUFF, J. E., Lincoln, Nebr. (Iowa)
SPRALE, L. D., New Albany, Ind. (Indiana)
STARR, L. K., Atlanta, Ga.
STELLE, OMAR P., Mount Clemens, Mich. (Michigan)
WATT, A. C., New York, N. Y.

What "Better Copy" Means to Utility Advertising

By IRVING M. TUTEUR, Vice-President McJunkin Advertising Company, Chicago, Ill.



Irving M. Tuteur

MY interpretation of better copy is simply better advertising. I don't care how good a piece of copy may be, or how much thought and time has been spent on developing it, if it isn't pleasingly presented to the public you are not going to have better copy in a strict advertising sense. So, better copy must be built from the very foundation of the business up and it does not end until you have an advertisement that looks well on the printed page in competition with all the other ads to be found there.

If you are a public utility, there is every reason why you should advertise and do so attractively, and very few reasons, if any, why you should stay out of the papers, or advertise in a purely perfunctory sort of way.

As one of the community's leading in-

dustries, isn't it natural that your advertising should be of such a character so as to assist rather than to deter you in securing for yourself the recognition which is your due? Isn't it quite illogical to spend thousands of dollars in building modern plants, in keeping them ship-shape and tidy, in rendering service above criticism, and then going into the newspaper with advertisements hastily prepared and poorly presented? Far more people see your newspaper announcements—and they see them every day—than will ever see the inside of your generating rooms or the outside of your stations. So, to me, it seems even more necessary to "doll" up your advertising in a modest sort of way than it is to "doll" up the grounds about your plants.

As a public utility, you have a wonderful opportunity to advertise. You are in contact with people of every class and nationality. You are engaged in industries that are lightening the labors of mankind. This is the age of new inventions, new



To the Business-Girl Bride:

*Will your kitchen be as efficient
as your office?*

*Special
Bride's Kitchen
Display
Pic Work*

(Describe Here)

[Your Name and Address Here]

THOUSANDS of young women this spring are graduating from the office into homes of their own. They've learned to systematize their business duties and make use of every possible labor-saving device. Office work hasn't been drudgery to them and neither should housework prove tedious.

If you put as many gas appliances into your home as you have typewriters and filing cabinets and stamping machines in your office, housework can be just as pleasant as office work.

Easy terms make it possible for you to completely equip your kitchen without the usual sacrifice of pretty furniture. Ask for other parts of the house. Bring "him" in to see the display. We're open Saturday night until 60 o'clock.

"The Simplest Method of Conveying an Idea Is by Picture"—Samples from the A. G. A. Advertising Service.

ideas, new methods. People are receptive to the advertising of new devices, new appliances, new short-cuts to efficient industrial and household management.

The simplest method of conveying an idea is by picture. Thousands of years ago, before modern methods of using words and letters were developed, picture writing was the sole means of written communication. Pictures are a universal language equally understandable to people of all nationalities and all degrees of intelligence.

In Europe the international time tables carry certain symbols which are recognized by people of all nationalities. A crossed knife and fork indicate that there is a restaurant in the station. A black cup means there is a "stand-up cafe" for light refreshments. A small steamboat signifies a steamboat transfer point.

European touring guides have a unique way of designating the standing of hotels.



Heat with Gas

*—and Have a Warm House
in the Morning*

What's the meanest thing about winter?

Getting up in a frosty cold house and shivering down two flights of stairs to build a furnace fire, of course!

Now think of a WARM bedroom when you get up to dress—tasty warm in a few minutes after you lower the window. No fire to build—no trips to the basement—no worry over fuel—nothing, just a cozy warm house!

(Your Name and Address)

An Automatic
Gas Furnace

keeps a little fire on at night, if you like, and can go to sleep in a piping hot bed. Does all this without any exertion. Get further facts about this ideal heating system. Call _____

A small picture of an inn accompanies each hotel and the number of gables in the picture, one, two, three or four, indicates in which of four classes the hotel falls. We, in this country, and especially the people in the public utility industry, must not overlook the tremendous value of pictures in our advertising.

Better advertising must contain the human interest element. Charts and graphs mean nothing to the average citizen, but a picture tells a story that he can quickly visualize, and not until advertising creates visualization does it create business.

Let us look afield for a moment and see what has been done by other advertisers.

An example of what might be called better advertising was worked out by the North Shore Electric Line a few short years ago. This line operates between Chicago and Milwaukee. It found that its passenger business was up in the summer

and down in the winter. The line was being used largely for summer vacation travel. Passenger traffic was especially large during summer week-ends.

The company started a systematic advertising campaign to attract the commercial traveler and others traveling throughout the year. Of course the campaign involved much more than advertising, as any successful campaign must do. It began with fundamentals—improving the road bed, adding new and better equipment, adjusting and speeding up schedules. But after this was done, then advertising was employed to carry the message of this new service to those whom the road felt were potential customers. Today the daily passenger revenues on the North Shore Line scarcely vary throughout the year. It is the same in January as in June—in August as in November.

Isn't there a lesson in this for those in the public utility business? When plants stand idle, we have an idle investment. Should we not give constructive thought to the development of a larger market for our products at a time such as that in order to put this investment into useful service? And if we doubt the power of advertising to create this additional demand, would it not be well for us to review what other industries faced with overproduction have done in order to create new uses for their product?

Better advertising is continuous advertising. The public utility that advertises its service or its merchandise only spasmodically, no matter how splendid the advertisements may be, is not engaged in better advertising from a constructive standpoint.

Advertising, in a sense, is the exercise of business. The public utility that advertises only a few times a year has no more right to expect really tangible results from that advertising than the chap who takes up physical exercise and hopes

to improve his physical condition by going into the gymnasium a half hour a couple of times a year. It's the steady week-after-week exercise that shows results, and it's the steady week-after-week advertising that produces business for the utility.

It isn't sufficient for the public utility to believe that because it provides an economical and labor-saving service its products will be widely used and the merit of the products widely recognized. Our very existence bears out this statement.

For instance, it is generally conceded that everybody ought to go to church—but just think how we have to be urged; that everybody ought to give to charity—but just think how we have to be urged; that everybody ought to carry life insurance—but think how we have to be urged; that everybody ought to obey the laws, particularly the prohibition laws—but think how we have to be urged; that everybody ought to vote on election day—but think how we have to be urged.

When it takes urging and constant urging for such things as those I have mentioned, is it surprising that it takes a lot of urge and reason why to make copy pull?

The object of most advertising, whether it is in a public utility business or in any other, is to build up volume of sales to the point where production costs are spread over so many units that the unit sells for less than would otherwise be possible. If there was ever a business where volume affects selling costs, certainly it is the public utility business, and hence if other industries have found that they can increase their sales through advertising, it would seem entirely logical that the public utilities can do the same thing.

When grape juice was introduced it cost \$10 a case and grapes sold at \$10 a

ton. Today with grapes at from \$50 to \$60 a ton, the price of grape juice has dropped to one-half of the original price.

Why? Simple enough—advertising has created a big demand for grape juice. Today it is a favorite national drink. Advertising, coupled with sound merchandising, has built up the volume, reduced the overhead and the public has received the benefit in lower prices.

This is a perfect example of the way advertising reduces production costs and gives the consumer more and more in return for every dollar he spends.

Many of the public utilities of the country have gone through this very same experience. Undoubtedly many more could have done so with the assistance of a better advertising program.

Phila. Suburban Celebrates Seventy Years of Progress

SEVENTY Years of Progress in the Delaware County Division of the Philadelphia Suburban Gas and Electric Company" is the complete title of an attractive sixteen-page booklet recently issued by that company. In connection with a running narrative account of the company's history, a series of interesting "then-and-now" pictures illustrates the growth and modernization of plant and equipment over the past half century or more.

"Some years prior to the beginning of the Civil War," we read, "citizens of Chester became interested in the possibilities of supplying portions of their thriving little river town with 'illuminating gas.' This scheme of using a gas derived from the distillation of coal for the lighting of residences had already become somewhat the vogue in England and Germany. Several large cities in the United States could also boast of small plants, which, when measured by the standard of the times, were successful.

"Accordingly, a group of Chester's more progressive citizens formed a company and on April 4, 1856, received a charter from the Commonwealth enabling them to establish an 'illuminating gas' business under the name of The Chester Gas Company.



The Darby Plant from 1872 (Below) to 1935

"The start of manufacture and distribution from the new plant was a great event, but the owners soon found that their troubles had only begun, for, as with all new ventures, the problems to be solved were many. The record of these early struggles would fill volumes. But the owners had faith—a steadfast conviction that their commodity, gas, would eventually become a great public necessity. This belief led them through their early difficulties and is responsible for the high state of efficiency to which the manufacture and production of gas has since been brought.

"While gas was developed originally for illumination, it is interesting to note that not ten per cent of the output of the Chester Works is so used now. With the advent of electricity for lighting, gas found its logical field of usefulness, in domestic cooking, water heating and house heating, and in industry where it is employed in hundreds of different processes. With the continual application of more scientific processes in the home and in the factory, new uses for gas are daily being developed, each of which will contribute to the further growth of the industry.

"The accompanying photographs tell their own story as to the extent of the equipment used today in supplying gas to Delaware County. If the comparisons shown here between these modern plants and the small ones of years gone by brings a smile, it must be remembered that the plants of twenty years hence will tower above those of today in even greater proportion, because development in the gas industry of Delaware County is going forward now at a greater rate than heretofore thought possible."

MANUFACTURERS SECTION

WENDELL L. SMITH, Chairman

W. E. DERWENT, Vice-Chairman

C. W. BERGHORN, Secretary

MANAGING COMMITTEE—1925

AARON, C. T., Newark, N. J.
 BARRETT, C. E., Philadelphia, Pa. (New Jersey and Pennsylvania.)
 BARKER, G. W., Washington, D. C. (Southern)
 BAKER, HOWARD, Baltimore, Md.
 BARNETT, W. E., Rockford, Ill. (Wisconsin)
 HAMILTON, P. H., Cleveland, O.
 HARRIS, G., Toronto, Ont., Canada. (Canadian)
 HOLLANDER, A. L., Chicago, Ill. (Indiana)
 JEFFERSON, W. H., New York, N. Y.
 JENNISON, H. J., New York, N. Y.
 KELLY, F. A., Kalamazoo, Mich.
 LEVY, JOHN, New York, N. Y.

MCDONALD, DONALD, New York, N. Y.
 MUELLER, R., Decatur, Ill.
 NORTON, A. E., Boston, Mass. (N. E. Gas Engr.)
 OSTERMAN, P. C., Elizabeth, N. J.
 RAMSEYER, C. J., Pittsburgh, Pa.
 ROPE, GRO. D., Rockford, Ill. (Illinois and Iowa)
 SIDENGLASS, C. H., Dallas, Texas. (Southwestern)
 SNAVER, KENNETH, Pittsburgh, Pa.
 STITES, TOWNSSEND, Gloucester, N. J.
 STOCKSTROM, A., St. Louis, Mo. (Missouri)
 WELLS, F. K., Boston, Mass. (Gas Sales of N. E.)
 WESTON, J. A., Detroit, Mich. (Michigan)
 WHITELAW, H. L., New York, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Exhibition—WENDELL L. SMITH, Battle Creek, Mich.
 Nominating—Geo. W. PARKER, St. Louis, Mo.
 Laboratory Equipment—DONALD McDONALD, New York, N. Y.
 Division of Accessories Manufacturers—R. MUELLER, Decatur, Ill.
 Division of Apparatus & Works Manufacturers—JOHN LOWE, New York, N. Y.
 Division of Gas Range Manufacturers—CHARLES T. AARON, Newark, N. J.
 Division of Heating Appliance Manufacturers—H. L. WHITELAW, New York, N. Y.

Division of Industrial Appliance Manufacturers—P. C. OSTERMAN, Elizabeth, N. J.
 Division of Lighting Appliance Manufacturers—TOWNSEND STITES, Gloucester, N. J.
 Division of Meter Manufacturers—W. H. JEFFERSON, New York, N. Y.
 Division of Office Labor Saving Devices—H. J. JOHNSON, New York, N. Y.
 Division of Supply Manufacturers—KENNETH SNAVER, Pittsburgh, Pa.
 Division of Water Heater Manufacturers—P. H. HAMILTON, Cleveland, O.

Exhibitors at the Seventh Annual Convention

THE following is the list of exhibitors to date with the allotment of exhibition spaces:

Booth Nos.

Abedroth Brothers, Port Chester, N. Y.	6 & 7	Chicago Pneumatic Tool Co., New York	320
A-B Stove Co., Battle Creek, Mich.	202 & 203	Clark & Co. Div., Geo. M., Chicago, Ill.	44 & 45
Acme Brass Works, Detroit, Mich.	404	Claus Automatic Gas Cock Co., Milwaukee	36 & 37
A. G. A. Accounting Section	553-4-5-6	Cleveland Co-Operative Stove Co., The, Cleveland, Ohio	411, 412 & 413
Ajax Brass & Iron Co., Brooklyn, N. Y.	47	Cleveland Heater Co., The, Cleveland, O.	409-10
Alpha-Lax Company, Inc., The, New York	516	Clow & Sons, James B., Chicago, Ill.	48 & 49
American Gas Furnace Co., Elizabeth, N. J.	417	Columbus Heating & Ventilating Co., The, Columbus, Ohio	113
American Gas Journal, New York, N. Y.	510	Combustion Utilities Corp., New York	127 & 128
American Meter Co., New York, N. Y.	524 & 525	Comstock Castle Stove Co., Quincy, Ill.	22
American Range Corp., Shakopee, Minn.	25	Con-Den-Rit Radiant Log Corp., The, Perth Amboy, N. J.	21
American Stove Co., St. Louis, Mo.	32 & 33	Connally Iron Sponge & Governor Co., New York	432
Armstrong Cork & Insulation Co., Pittsburgh, Pa.	17	Connersville Blower Co., Connerville, Ind.	543 & 544
Atlantic Tubing Co., Providence, R. I.	107	Cribben & Sexton Co., Chicago, Ill.	310
Automatic Safety Appliance Corp., N. Y.	135	Cruse-Kemper Co., Ambler, Pa.	501
Bailey Meter Co., Cleveland, Ohio	548	Cutler-Hammer Mfg. Co., The, Milwaukee	129-30
Burber-Greene Co., Aurora, Ill.	136	Dangler Stove Co. Div., Cleveland, Ohio	42 & 43
Bartlett Hayward Co., The, Baltimore, Md.	314 & 315	Davidson Co., M. T., New York, N. Y.	217
Beswick Company, The, Dowagiac, Mich.	116-7-8	Dearborn Chemical Co., Chicago, Ill.	111 & 112
Bennits Furnace Appliance Co., Boston	430	Detroit Stove Works, Detroit, Mich.	307
Bledgett Co., The G. S., Burlington, Vt.	16	Dresser Mfg. Co., S. R., Bradford, Pa.	431
Bonne County Coal Corp., Sharples, W. Va.	131	Dunrite Clock Controlled Devices, New York	560
Bristol Co., The, Waterbury, Conn.	549	Elgin Stove & Oven Co., Elgin, Ill.	415 & 416
Bryant Corp., C. L., Cleveland, Ohio	414	Elliott-Fisher Co., New York, N. Y.	557
Bryant Heater & Mfg. Co., The, Cleveland, O.	311	Equitable Meter Co., Pittsburgh, Pa.	530
Burnoughs Adding Machine Co., Detroit	565-6	Erie Stove & Mfg. Co., Erie, Pa.	114 & 115
Chambers Manufacturing Co., Shelbyville, Ind.	38 & 39	Estate Stove Co., The, Hamilton, Ohio	5
Chicago Bridge & Iron Works, Chicago, Ill.	218	Floyd-Wells Co., Royersford, Pa.	104
		Gas Age-Record, New York, N. Y.	597
		Gas Industry, Buffalo, N. Y.	599

Gas Machinery Co., The, Cleveland, Ohio	321
Gas Purifying Materials Co., Long Island City, N. Y.	110
General Gas Light Co., Kalamazoo, Mich.-New York, N. Y.	10 & 11
General Gas Mantle Co., Camden, N. J.	408
Giant Manufacturing Co., Council Bluffs, Iowa	122
Glenwood Range Co., Taunton, Mass.	23 & 24
Grayson Mfg. Co., The J. H., Athens, Ohio	402 & 403
Griffin & Co., John J., Philadelphia, Pa.	536
Hall Mfg. Company, The, Toledo, Ohio	513
Hays Manufacturing Co., Erie, Pa.	50
Heime & McIlhenny, Philadelphia, Pa.	538
Hoffman Heater Co., The, Louisville, Ky.	308 & 309
Home Service, A. G. A., New York, N. Y.	561-2-3
Hotstream Heater Co., The, Cleveland, Ohio	450
Humphrey Co., Div. Ruud Mfg. Co., Kalamazoo, Mich.	312 & 418
Hunt Co. Inc., C. W., West New Brighton, S. I., N. Y.	534
Improved Equipment Co., The, New York	124
Intercolonial Gas Journal of Canada, Hamilton, Ont., Can.	508
Isbell-Porter Co., Newark, N. J.	500
Johns-Manville, Inc., New York, N. Y.	316 & 317
Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich.	545
King Refractories Co., Inc., Buffalo, N. Y.	564
Kompak Co., The, New Brunswick, N. J.	205
Koppers Co., The, Pittsburgh, Pa.	318
Lambert Meter Co., Inc., Brooklyn, N. Y.	547
Lattimer Stevens Co., The, Columbus, Ohio,	539-40
Lavino & Co., E. J., Philadelphia, Pa.	121
Lawson Mfg. Co., Pittsburgh, Pa.	106
Lovekin Water Heater Co., The, Philadelphia	204
McDonald & Co., D., Albany, N. Y.	523
McWane Cast Iron Pipe Co., Birmingham, Ala.	550
Magee Furnace Co., Boston, Mass.	459 & 460
Manganese Steel Forge Company, Philadelphia	512
Maryland Meter Works, Baltimore, Md.	537
Mears-Kane-Ofeldt, Inc., Philadelphia, Pa.	215
Merco Nordstrom Valve Co. Inc., New York	423
Metric Metal Works, Erie, Pa.	535
Michigan Stove Co., The, Detroit, Mich.	1 & 2
Milwaukee Gas Specialty Co., Milwaukee	101
Mine Safety Appliances Co., Pittsburgh, Pa.	133
Minneapolis Heat Regulator Co., Minneapolis, Minn.	425
Moore Brothers Co., Joliet, Ill.	46
Mueller Brass Co., Port Huron, Mich.	421 & 422
Mueller Co., Decatur, Ill.	419 & 420
National Stove Co. Div., Lorain, Ohio	30 & 31
National Tube Co., Pittsburgh, Pa.	504 & 505
Neptune Meter Co., New York, N. Y.	454
New Process Stove Co. Div., Cleveland, O.	40-1
Peerless Heater Co., Pittsburgh, Pa.	405
Peerless Mfg. Co., The, Louisville, Ky.	208 & 209
Pennsylvania Crusher Co., Philadelphia, Pa.	552
Pennsylvania Engineering Works, New Castle, Pa.	426
Permutit Co., The, New York, N. Y.	132
Pittsburgh Meter Co., Pittsburgh, Pa.	528
Pittsburg Water Heater Co., Pittsburgh, Pa.	211
Porcelain Enamel & Mfg. Co., Baltimore, Md.	108
Public Utilities Reports, Washington, D. C.	569
Quick Meal Stove Co. Div., St. Louis, Mo.	28 & 29
Radiant Heat Corporation of America, New York	313
Rathbone, Sard & Co., Aurora, Ill.	8 & 9
Reliable Stove Co. Div., Cleveland, Ohio	34 & 35
Remington Typewriter Co., Inc., New York	541-2
Republic Flow Meters Co., Chicago, Ill.	428
Reznor Manufacturing Co., Mercer, Pa.	510 & 511
Riter Conley Co., Pittsburgh, Pa.	509
Roberts Brass Mfg. Co., The, Detroit, Mich.	12
Roberts & Mander Stove Co., Philadelphia	211
Robertshaw Thermostat Co., Youngwood, Pa.	211
Robins Conveying Belt Co., New York, N. Y.	511
Roots Co., The P. H. & F. M., Connerville, Ind.	119 & 120
Roper Corp., Geo. D., Rockford, Ill.	200 & 211
Russell Engineering Co., St. Louis, Mo.	121
Ruud Manufacturing Co., Pittsburgh, Pa.	206 & 207
Safety Gas Lighter Co., Lynn, Mass.	10
Safety Gas Main Stopper Co., Brooklyn, N. Y.	511
Sands Manufacturing Co., The, Cleveland, O.	511
Sexton Stove & Mfg. Co., The S. B., Baltimore, Md.	222
Simplex Heater Control Co., St. Paul, Minn.	42
Slattery & Bro. Inc., J. B., Brooklyn, N. Y.	511
Sprague Meter Co., The, Bridgeport, Conn.	511
Stacey Bros. Gas Construction Co., The, Cincinnati, Ohio	119
Stacey Manufacturing Co., The, Cincinnati, O.	511
Standard Gas Equipment Corp., The Oriole Division, Baltimore, Md.	300 & 311
Triplex Division, New York, N. Y.	312
Vulcan Division, New York, N. Y.	303, 304, 305, 311
Steere Engineering Co., Detroit, Mich.	210
Sterling Range & Furnace Corp., Rochester, N. Y.	315
Strait & Richards Inc., Newark, N. J.	411
Sturtevant Co., B. F., Boston, Mass.	511
Superior Meter Co., Brooklyn, N. Y.	511
Surface Combustion Co., The, Bronx, N. Y.	125 & 126
Tappan Stove Co., The, Mansfield, Ohio	118 & 119
Time-O-Stat Corp., The, Milwaukee, Wis.	406 & 417
Titeflex Metal Hose Co., Newark, N. J.	119
Tufts Meter Works, Nathaniel, Boston, Mass.	316
U. G. I. Contracting Co., Philadelphia	219-220
U. S. Bureau of Mines, Washington, D. C.	514 & 515
United States Cast Iron Pipe & Foundry Co., Burlington, N. J.	411
Wait & Davey Co., Inc., Long Island City, N. Y.	311
Walker & Pratt Mfg. Co., Boston, Mass.	311
Welsbach Co., Gloucester, N. J.	3 & 4
Western Gas, Los Angeles, Calif.	311
Western Gas Construction Co., The, Fort Wayne, Ind.	311
West Gas Improvement Co. of America, New York	211
Wheeling Corrugating Co., Wheeling, W. Va.	311
White-Warner Co., The, Taunton, Mass.	311
Wilcolator Co., The, Newark, N. J.	54 & 55
Wilder Metal Co., Niles, Ohio	311
Wolff Gas Radiator Co., The A. H., New York, N. Y.	34 & 35
Wood & Co., R. D., Philadelphia, Pa.	567 & 568
Youngstown Pressed Steel Co., The, Warren, Ohio	311

THE NAME of the Wm. Kane Manufacturing Company of Philadelphia has been changed to MEARS-KANE-OFELDT, INC., which company has acquired by purchase the business heretofore conducted by the Ofeldt Gas-Fired Boiler Company, Inc., of Nyack, N. Y.

H. A. WILSON COMPANY has announced that the department devoted to the manufacture and sale of heat controlling devices has been transferred to a new corporation known as THE WILCOLATOR COMPANY, 5 Oliver Street, Newark, N. J.

INDUSTRIAL GAS SECTION

H. O. LOEBELL, Chairman

C. W. BERGHORN, Secretary

F. F. CAULEY, Vice-Chairman

MANAGING COMMITTEE—1925

ALLINGTON, J. B., Rochester, N. Y.
ANDREW, H. O., New York, N. Y.
BROOKSTONE, H. E., Jackson, Mich. (Michigan)
CLARK, H. H., Chicago, Ill. (Illinois)
DU COROLLE, E. G., Boston, Mass.
DEFREITAS, W., New York, N. Y.
GUTH, J. H., San Francisco, Calif.
HARDING, D. J., York, Pa. (Pennsylvania)
HEBERT, H. M., New York, N. Y.
HISPBURG, W. M., New York, N. Y.
HUTCHINSON, C. A., Pawtucket, R. I. (Gas Sales of N. E.)
HOLMAN, H. B., St. Louis, Mo. (Missouri)
HORN, R. J., Texarkana, Tex. (Southwestern)
KRAUTER, C. C., Baltimore, Md.
LEHRHOTHL, J. P., Newark, N. J.
METTENWETZ, F. X., Hammond, Ind. (Indiana)

MOREHEAD, JR., I. H., Atlanta, Ga. (Southern)
MUEHLBERG, C. E., Denver, Col.
PETERSON, C. G., Providence, R. I.
QUINN, J. F., Brooklyn, N. Y.
QUINN, J. J., Quincy, Mass. (N. E. Gas Engrs.)
RAMSAY, R. E., Philadelphia, Pa.
SCHUETZ, A. A., Milwaukee, Wis. (Wisconsin)
SELLMAN, N. T., New York, N. Y.
SLIMPIN, C. D., Montreal, Canada. (Canadian)
SMITH, H. H., Boston, Mass.
STAHL, C. R., Davenport, Iowa. (Iowa)
STEPHANY, E. J., Pittsburgh, Pa.
THOMPSON, W. D., St. Louis, Mo.
WATSON, H. E. G., Toronto, Ont., Canada.
WHITWELL, G. E., Tacoma, Wash. (Pacific Coast)
YOUNG, R. R., Newark, N. J. (New Jersey)

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Advertising—F. F. CAULEY, Chicago, Ill.
Contact with Committee on Cooperation with Educational Institutions—J. J. QUINN, Quincy, Mass.
Education of Industrial Salesmen—J. P. LEHRHOTHL, Newark, N. J.
Eloquencing—H. H. CLARK, Chicago, Ill.

Policy—F. F. CAULEY, Chicago, Ill.
Progress—C. C. KRAUTER, Baltimore, Md.
Publicity—H. O. ANDREW, New York, N. Y.
Rates—H. O. LOEBELL, New York, N. Y.
Research—J. B. ALLINGTON, Rochester, N. Y.
Survey—R. E. RAMSAY, Philadelphia, Pa.

Gas Companies Urged to Tie In with National Industrial Campaign

THE industrial gas advertising campaign conducted by the Industrial Gas Section will begin with the appearance of the first of a series of advertisements in this month's issues of the following publications:

Automotive Industries
Journal Society of Automotive Engineers
Bakers Weekly
American Bankers Association Journal
Boiler Maker
Glass Industry
Brick and Clay Record
Ceramic Industry
Engineering News Record
Factory
The Canner
Chemical and Metallurgical Engineering
Industrial Management
Confectioners Journal
Electrical World
Forging, Stamping and Heat Treating
The Foundry
Iron Age
Iron Trade Review
Machinery
Metal Industry
Fuels and Furnaces
National Provisioner

American Zinc and Lead Journal
American Paint Journal
Marine News
Tea and Coffee Trade Journal
Industrial Gas
National Laundry Journal
Forbes

This initial advertisement is reproduced on the page following. From it you will note that two objectives are obtained.

In the first place, a general message on industrial gas is delivered, and, secondly, a specific application of the use of gas in a particular industry is explained in the text in the lower right hand corner. Thirty industries reached by this campaign will all read the same general message on industrial gas, but each of the thirty will be covered by copy of special interest and application. In other words, while each of the thirty advertisements will retain the same physical appearance,

ONE OF A SERIES OF ADVERTISEMENTS SPONSORED BY THE AMERICAN GAS ASSOCIATION

If it is done with heat *better*
you can do it *with gas*



Cheaper, cleaner, reduced fuel bills, more accurate temperatures control—with gas

A VANDISH manufacturer who is fitting his cooking plants with gas says:

"I am getting better results

than I ever made before with other fuels; and I'm saving 9¢

on every gallon."

A large capacity steel plant has recently decided to change over to burning gas. The chief reason is that the cost of gas per cu. ft. production costs 9.5¢ per cu. ft.

Another manufacturer converted his worn heat-treating equipment to gas. By doing so, he says, "I have eliminated fuel waste."

Read the magazine, INDUSTRIAL GAS. It will show how many companies are saving money by switching to gas.

INDUSTRIAL GAS is published monthly by the American Gas Association, 100 Hudson Street, New York, N.Y.

READ a year, which I couldn't do with other fuels.

I am getting more work

in my city gas

—more and more each day. Gas is

cutting the costs of heating, operating

and finishing work.

One customer says:

"Gas is the best fuel for

heat-treating.

Gas is the best fuel for

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COMMERCIAL SECTION

J. P. HANLAN, Chairman

R. L. BURDICK, Secretary

J. B. MYERS, Vice-Chairman

MANAGING COMMITTEE—1925

- ADAMS, W. A., Chicago, Ill.
AMHERST, RAY, Jenkintown, Pa.
AWOOD, B. H., Wilmington, Del.
BAILEY, E. P. JR., Cleveland, Ohio.
BARTLETT, C. E., Philadelphia, Pa.
BATES, S. F., Macon, Ga.
BENKE, E. J., Indianapolis, Ind. (Indiana)
BROWN, J. J., St. Louis, Mo.
CANNIFF, R. J., Poughkeepsie, N. Y.
CAVET, FRANK, Boston, Mass. (Gas Sales of N. E.)
CLARK, J. C. D., Boston, Mass.
CLAY, NOEL L., Winston-Salem, N. C.
COOKE, E. J., Lowell, Mass.
CONE, WILLY F., St. Louis, Mo. (Missouri)
CRACKERHAWK, J., Ward, Allentown, Pa. (Pennsylvania)
DAVIES, J. E., Chicago, Ill.
GANTON, LUTHER, Birmingham, Ala. (Southern)
GOULD, WM., Boston, Mass.
GRADY, STANLEY, Philadelphia, Pa.
HATZ, D. W., Detroit, Mich. (Michigan)
HEWITT, A. W., New York, N. Y.
JOHNSON, W. B., Toronto, Ont., Canada. (Canadian)
- JOHNSON, JACOB B., Bridgeton, N. J. (New Jersey)
KARSHNER, G. M., New York, N. Y.
KENNEDY, THOS. F., New York, N. Y.
KETS, HARVEY A., Pittsburgh, Pa.
KLOPP, G. C., Chicago, Ill. (Illinois)
LITTLE, STANLEY E., Lorain, Ohio.
LUTHIN, C. A., Chicago, Ill.
MARTIN, E. H., Des Moines, Iowa (Iowa)
MORRIS, W. A., Brooklyn, N. Y.
NORTH, M. F., Fort Wayne, Ind.
PHILMICK, C. R., Green Bay, Wis. (Wisconsin)
POST, A. P., Philadelphia, Pa.
REAGAN, W. J., Utica, N. Y. (Empire State)
SMITH, DOROTHY R., Baltimore, Md.
STOTT, LOUIS, Philadelphia, Pa.
SWANN, ADA BESSIE, Newark, N. J.
TUDOR, JOHN L., Salem, Mass. (N. E. Gas Engrs.)
VALENTINE, H. D., Chicago, Ill.
WARDELL, C. W., Philadelphia, Pa.
WHITWELL, G. E., Tacoma, Wash. (Pacific Coast)
WISE, P. B., Brooklyn, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Architects and Builders—W. A. ADAMS, Chicago, Ill.
Gas Refrigeration—H. D. VALENTINE, Chicago, Ill.

Home Service—Miss ADA BESSIE SWANN, Newark, N. J.
Sales Stimulation—R. J. CANNIFF, Poughkeepsie, N. Y.

Lessons of the Mohonk-Gloucester Conferences

THE experiment of the Commercial Section, started by the Summer Sales Conference, at Millbrook, New York, in 1924, has proved a practical success in the two similar meetings this year at Lake Mohonk (N. Y.), and Gloucester (Mass.). Any doubts which existed as to the practical value of such meetings have been unquestionably settled by the enthusiasm and definite results of this year's conferences.



Prof. Hotchkiss of
N. Y. U.

More than 250 sales executives, drawn from nearby and distant points, have left these conferences with a broader vision of gas and appliance sales possibilities, a clearer picture of their individual opportunities, and a wider knowledge

of the ways and means of building more and better gas sales.

The formal addresses, dealing with nearly every branch of gas advertising and selling, were delivered by men chos-



John Lee Mahin



"A Round Dozen of Honors."



Prof. Cabot of
Harvard

The Sport Prizes and Some of the Speakers at the Lake Mohonk Conference



Lake Mohonk from the Hotel Perch

en both from the gas industry and from many other selling lines. The contributions made by the latter, condensing the experience of other businesses, were bound closely to our own problems by specific discussions and informal conferences outside the meeting room.

There was recreation at each of these conferences—a reasonable amount—but even on the golf course or in the midst of a quoits match the exchange of selling ideas continued.

Several fundamental ideas for the future of the gas business became dominant throughout these meetings. The spon-

taneous growth of these thoughts alike at two separate conferences augured their importance and significance. Among these were:

1. The responsibility for the future expansion of the gas industry lies upon the commercial man. To shoulder this burden and accept his opportunity he should be given a greater weight of authority and consideration in the formulation of gas company development programs.
2. A comprehensive advertising and promotion campaign to sell the uses of gas to consumers in a national powerful way is not only inevitable, but needed soon.
3. The public needs and will welcome standards established and promoted which will mark appliances which give satisfaction. The seal of approval of the A. G. A. Testing Laboratory should be "sold" to the public.
4. Along with more and stronger publicity and advertising, the gas industry needs better sales organization, better salesmen and a bigger financial stimulation and recognition of results as achieved by the man who meets the public in sales efforts.
5. The making of better home-keepers, the restoration and increase of gas cookery, gas laundry, and other domestic educational work, as exemplified in Home Service, is a vital need for gas companies. The radio, an open door to the ear of the home, is one of our most useful and potential instruments of Home Service.
6. Househeating by gas is inevitable. We cannot stem its tide if we would. It must be sold, but more important we must hasten in our efforts to learn how to sell househeating.



Group at the Second Sales Conference, Gloucester, Mass.

TECHNICAL SECTION

R. C. CORNISH, Chairman

J. P. HAFTENKAMP, Vice-Chairman
H. W. HARTMAN, Secretary

MANAGING COMMITTEE—1925

BATES, H. E., Chicago, Ill. (Illinois)	INGWALL, F. F., Binghamton, N. Y. (Empire State)
BENJORD, W. C., New York, N. Y.	KELLY, T. J., Ft. Wayne, Ind. (Indiana)
BENNETT, W. A., St. Louis, Mo.	KIRCH, L. A., Chicago, Ill.
BENTONVILLE, N. B., Bristol, Pa. (Pennsylvania)	LEVAN, D. H., Savannah, Ga. (Southern)
BROWN, J. A., Jackson, Mich. (Michigan)	LYONS, B. F., Beloit, Wis. (Wisconsin)
BUCKLEIGHFORD, R. Pawtucket, R. I. (Gas Sales)	MORRIS, W. R., Jersey City, N. J.
BURDICK, R. H., New York, N. Y.	MURPHY, F. D., Houston, Texas. (Southwestern)
CARLIS, Jr., R. A., New York, N. Y.	PERRY, J. A., Philadelphia, Pa.
CONE, H. R., Baltimore, Md.	PORTER, R. G., Chester, Pa.
COPPER, H. C., Pittsburgh, Pa.	SEYMOUR, F. W., Battle Creek, Mich.
EVANS, Geo. B., St. Louis, Mo.	SNYDER, A. I., Detroit, Mich.
FISHER, H. C., Sedalia, Missouri. (Missouri)	STREKO, L. S., Louisville, Ky.
FISHLER, A. C., Pittsburgh, Pa.	VITTINGHOFF, H., Boston, Mass.
FREEMAN, F. C., Providence, R. I. (N. E. Gas Engrs.)	WEBER, F. C., New York, N. Y.
HOT, C. W., Glassboro, N. J. (New Jersey)	WILLIAMS, C. T., Sioux City, Iowa. (Iowa)
HUMPHREYS, J. J., Montreal, Quebec, Can. (Canadian)	WILLIAMS, L. J., Boston, Mass.
	YARD, W. S., San Francisco, Calif. (Pacific Coast)

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Carbonization—A. M. BEBBER, Rochester, N. Y.
Cast Iron Pipe Standards—WALTON FORSTALL, Philadelphia, Pa.
Compressing and Scrubbing Committee—D. W. FLOWERS, St. Paul, Minn.
Chemical Committee—A. F. KUNZENMOM, Philadelphia, Pa.

Distribution—H. E. BATES, Chicago, Ill.
Measurement of Large Volumes of Gas—M. E. BENJORN, Chicago, Ill.
Nominating—L. J. WILLIAMS, Boston, Mass.
Revision of Catechism—W. J. SAWILL, Philadelphia, Pa.
Water Gas—J. H. WARMICK, Elrama, Pa.

A Record of the Detroit Distribution Conference

CHAIRMAN H. E. BATES, in convening the conference of 135 distribution men held at the Brook Cadillac Hotel, Detroit, June 11-12, estimated that the combined investment in distribution equipment of the companies represented by the delegates in attendance was not less than a billion dollars. A billion dollars! Stated baldly in cold figures it brings home to the gas industry the tremendous responsibility resting on the distribution engineer in planning and recommending the further investments required for future expansion and in maintaining the efficiency of his existing equipment.

That the distribution engineers recognized this responsibility and were prepared to bring to their problems their best thought and experience was amply

indicated by the manner in which they discussed the subjects brought before the conference.

To secure the greatest possible economy and efficiency in distribution design and engineering consistent with safe and adequate service was stated by the chairman as the keynote of the meeting. Throughout the four sessions this main purpose was accentuated in the various discussions.

The first session was devoted to the general subject of pipe materials and joints. J. K. Crowell, of the Westchester Lighting Company, presented a summary of the experience of some thirty-three companies on the life of cast iron, wrought iron and steel pipe.

Chas. Wilde, of Chester, Pa., summarized the experience of gas companies

with the use of centrifugal pipe using lead joints, cement joints, Dresser couplings and bronze welds. The following is a partial list of companies that have used bronze welded joints with length of line laid, type of pipe and date of laying:

Products Company, were distributed and will later be published in the A. G. A. MONTHLY.

W. D. Stokes, of the U. S. Cast Iron Pipe and Foundry Company, then addressed the meeting with regard to the

BRONZE WELDED PIPE LINES

Name of Company	Location	Reported Length	Reported Type of Pipe	Reported Date of Starting
Capitol Gas & Electric Co.	Topeka, Kans.	800'	4" Sand Cast	Aug. 26 to Sept. 9, 1924
Kansas Gas & Elec. Co.	Wichita, Kans.	260'	4" Sand Cast	March, 1925
Galveston Gas Co.	Galveston, Tex.	1,800'	4" " "	Nov., 1924 to Feb., 1925
Southern Public Utilities Co.	Charlotte, N. C.	5 miles	4" & 6" "	May, 1924
Capitol Gas & Elec. Co.	Topeka, Kans.	600'	6" Sand Cast	Sept., 1924
E. L. Phillips Const. Co.	Bayshore, L. I.	22,523'	6" Centrifugally Cast	March, 1924
Public Service Co.	Denver, Colo.	380'	6" " "	June, 1924
Consolidated Gas Elec. Lt. & Pr. Co.	Baltimore, Md.	84'	6" " "	Sept. 17, 1924
Rochester Gas & Elec. Corp.	Rochester, N. Y. (Britton Road)	580'	6" " "	Sept. 25, 1924
	(Landing Road)	552'	6" " "	Oct. 19, 1924
	(Quentin Road)	288'	6" " "	Fall, 1924
Republic Lt. Ht. & Pr. Co.	Tonawanda, N. Y.	1,800'	6" " "	Fall, 1924
Peoples' Gas Lt. & Coke Co.	Chicago, Ill. (Edgebrook)	3,781'	6" " "	Oct. 20, 1924
	(Mt. Clair)	9,907'	6" " "	July-Sept., 1924
Illinois Lt. & Pr. Co.	LaSalle, Ill.	4,200'	6" Centrifugally Cast	July-Oct., 1924
Consumers' Gas Co.	Miami, Okla.	300'	6" Sand Cast	Sept. 3, 1924
Southern Counties Gas Co.	Los Angeles, Cal.	8,000'	8" Fr. Sand Cast	May-June, 1924
Southern Counties Gas Co.	Los Angeles, Cal.	13,000'	8" Domestic & Fr. Sand Cast	May-June, 1924
		4,000'	8" Centrifugally Cast	May-June, 1924
Southern Counties Gas Co.	Los Angeles, Cal. (Pomona line)	20,000'	8" Fr. Sand Cast	Aug. 1924
Illinois Lt. & Pr. Co.	LaSalle, Ill.	3,000'	8" Centrifugally Cast	Nov.-Dec. 1924
Dallas Gas Co.	Dallas, Tex.	7,500'	8" Centrifugally Cast	Nov., 1924
Worcester Gas Lt. Co.	Worcester, Mass.	108	8" Centrifugally Cast	Aug., 1924
Kansas Gas & Elec. Co.	Kansas City, Mo.	308"	8" " "	Aug., 1924
Illinois Lt. & Pr. Co.	LaSalle, Ill.	2,500'	12" Centrifugally Cast	Oct.-Nov., 1924
Chattanooga Gas Co.	Chattanooga, Tenn.	6,350'	6" Centrifugally Cast	May 1, 1925
		1,500'	8" Centrifugally Cast	May 1, 1925
Bartlesville Gas & Elec. Co.	Bartlesville, Okla.	300'	6" Sand Cast	Sept. 3, 1924
Kansas City Gas Co.	Kansas City, Mo.	270'	4" " "	Mar. 30, 1925
U. S. C. I. Pipe & Foundry Co.	Anniston, Ala.	750'	6" Centrifugally Cast	Feb. 1, 1925
Birmingham Elec. Co.	Birmingham, Ala.	39 welded joints	6" Sand Cast	Apr. 1, 1924
Municipal Gas Plant	Clearwater, Fla.	10,000'	4" Sand Cast	Aug. 1, 1924
		35,000'	2" " "	Aug. 1, 1924
Southwestern Gas & Elec. Co.	Shreveport, La.	4,000'	6" " "	Aug., 1924
Southwestern Gas & Elec. Co.	Shreveport, La.	200'	8" Centrifugally Cast	Sept. 20, 1924
North Shore Gas Co.	Waukegan, Ill.	3,300'	8" Centrifugally Cast	Dec. 1, 1924
		2,800'	12" Centrifugally Cast	Dec. 1, 1924

H. R. Swartley, of the Linde Air Products Company, described for the members the research and work of that company in perfecting the bronze weld. Copies of a modified procedure control for bronze welding, as prepared by the Linde Air

centrifugally cast pipe and answered questions of the members as to foundry details, etc.

E. S. Umstead presented a summary, with charts, on the experience of gas companies with all types of joints. The

importance of this subject led to its being carried over till Friday morning for further consideration.

The discussion covered not only the extent to which various types of joints have been used, but a detailed consideration of the proper manner of making up joints to insure sufficient strength, number and causes of joint failures, etc.

L. K. Richey, of the Detroit City Gas Company, described with blue prints the methods adopted for the making of cement joints in main sizes over 16".

The conference recognized the importance of stimulating further study and research in the practice of making all types of joints by a formal resolution for the appointment of standing committees on each type of joint. Each committee will be made up of men experienced in the making of the particular type of joint considered. The Cement Joint Committee will keep in touch with companies using this type, encourage and record tests made by these companies either individually or in co-operation with the A. G. A. or other bodies, and be responsible for a complete report on developments in this type of joint. Similar procedure will be followed by the other committees.

The second session was devoted to the general subject of distribution design. Henry Fink of the Detroit City Gas Co. summarized the practice of the companies in figuring rate of consumption per meter.

R. G. Griswold of Henry L. Doherty & Co. presented for consideration tentative definitions of the terms load factor, maximum demand and diversity factor. Considerable variation in the interpretation and use of these terms was reported. The conference recognized the importance of this subject by recommending the appointment of a sub-committee to assist Mr. Griswold in preparing

standard definitions for adoption at the Fall meeting of the A. G. A.

Other matters discussed at the second session included the application of the ideal square mile of distribution system by F. A. Lydecker of Newark, report of the Committee on Maximum Demand Meters by H. C. Deffenbaugh of Rochester, a statistical comparison of a number of distribution systems based on data submitted by a number of companies by M. I. Mix, of Chicago, summarization of use of automatic loading devices to increase capacity by J. C. Devlin, of Brooklyn, and a paper on the effect of house heating on distribution by C. A. Harrison of Denver, Colo.

The conference approved the general program presented by the Committee on Maximum Demand Meters which included the following: (1) Informing gas companies as to the necessity of demand rates for gas in the industrial and heating field and for the use of demand instruments in the determination of demand; (2) Encouraging manufacturers in the development of gas demand devices; (3) Preparation of specifications on the use and general characteristics of gas demand measuring devices; (4) Proposal of a standard time interval on which demand may be based.

On motion seconded and carried the conference authorized the Committee to suggest demand registering meters based on time intervals of 15, 30 and 60 minutes.

Mr. Harrison's paper, a complete copy of which will be included in the report of the Distribution Committee of the fall Convention, will be published in a forthcoming issue of the *MONTHLY*.

The third session was devoted to the general subject of installation of mains. Discussions included a summarization of practice with regard to depth and grades for main installations by V. C. Hoddick,

of Rochester, N. Y., types and methods of installing drips by D. A. Powell, Milwaukee, Wis.; installation of mains in parkways by D. D. Ransdell, of Washington, D. C., and the use of labor saving machinery in main installation by Joseph Lucena, of Syracuse, N. Y.

Too much appreciation cannot be accorded the officials of the Detroit Gas Company for the splendid manner in which they co-operated to afford visiting delegates full opportunity to inspect points of interest in the local work and to see that the delegates and their wives had a most pleasant visit to Detroit.

The Friday afternoon session was devoted largely to a thorough discussion of subjects taken up at the preceding sessions.

The following is the list of the members who registered at the Distribution Conference:

Amos H. Abbott	St. Paul, Minn.	Long Island City, N. Y.
Henry Clay Adams	Pittsburgh, Pa.	Detroit, Mich.
L. Adams	Erie, Pa.	Lima, Ohio
David P. Allen	Des Moines, Ia.	Worcester, Mass.
A. H. Anderson	Detroit, Mich.	Detroit, Mich.
James Ashworth	Jersey City, N. J.	Fall River, Mass.
John W. Batten	Detroit, Mich.	St. Louis, Mo.
H. E. Bates	Chicago, Ill.	Boston, Mass.
Chas. W. Bennett	Detroit, Mich.	Detroit, Mich.
W. A. Bertke	St. Louis, Mo.	Cleveland, Ohio
Wm. J. Bowers	Hammond, Ind.	Lansing, Mich.
Albert M. Boyd	Philadelphia, Pa.	New York, N. Y.
Geo. H. Boyd	New York, N. Y.	Pittsburgh, Pa.
A. V. Brashear	Detroit, Mich.	New York, N. Y.
David L. Brown	Pontiac, Mich.	Ann Arbor, Mich.
J. A. Brown	Jackson, Mich.	Ann Arbor, Mich.
Wm. J. Buckley	Chicago, Ill.	Toledo, Mich.
John E. Burke	Buffalo, N. Y.	Detroit, Mich.
D. F. Burritt	Chicago, Ill.	Rochester, N. Y.
Wm. D. Carew	Grand Rapids, Mich.	Cleveland, Ohio
Chas. E. Carlton	Lansing, Mich.	Chicago, Ill.
R. S. Carter	Malden, Mass.	St. Louis, Mo.
R. G. Castle	Astoria, Ohio	Memphis, Tenn.
S. P. Cobb	New York, N. Y.	Chicago, Ill.
H. R. Cook	Baltimore, Md.	Chicago, Ill.
Thos. C. Corin	Detroit, Mich.	Chicago, Ill.
P. E. Crosier	Indianapolis, Ind.	Chicago, Ill.
Wm. L. Cross	Detroit, Mich.	Chicago, Ill.
J. K. Crowell	Yonkers, N. Y.	Chicago, Ill.
Frank H. Darlington	Glassboro, N. J.	Chicago, Ill.
H. C. Deffenbaugh	Rochester, N. Y.	Chicago, Ill.
J. C. Devlin	Brooklyn, N. Y.	Chicago, Ill.
N. De Wind	New York, N. Y.	Chicago, Ill.
Geo. D. Dodd	St. Louis, Mo.	Chicago, Ill.
E. A. Doyle	New York, N. Y.	Chicago, Ill.
H. Eisenberg	Worcester, Mass.	Chicago, Ill.
L. B. Elliot	Chicago, Ill.	Chicago, Ill.
E. H. Enander	Chicago, Ill.	Chicago, Ill.
L. A. Ewart	Far Rockaway, N. Y.	Chicago, Ill.
Henry Fink	Detroit, Mich.	Chicago, Ill.
E. L. Fischer	Davenport, Iowa	Ashtabula, Ohio
O. F. Flumerfelt	Buffalo, N. Y.	Detroit, Mich.
Walton Forstall	Philadelphia, Pa.	Montreal, Que., Canad.
		Michigan City, Ind.

Associations Affiliated with A. G. A.

Canadian Gas Association

Date of affiliation—Mar. 25, 1919.
Pres.—E. R. Hamilton, Nova Scotia Tramways & Power Co., Halifax, N. S.
Sec.-Tr.—G. W. Allen, 7 Astley Avenue, Toronto, Ont., Quebec, Que., July 15 and 16, 1925.

Empire State Gas and Electric Association

Date of affiliation—Nov. 21, 1919.
Pres.—M. S. Sloan, Brooklyn Edison Co., Brooklyn, N. Y.
Chairman Gas Section—C. C. Atwood, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Sec.-Tr.—C. H. Chapin, Grand Central Terminal, New York, N. Y.
Annual Meeting, Lake Placid, N. Y., Oct. 1 and 2, 1925.

Illinois Gas Association

Date of affiliation—Mar. 19, 1919.
Pres.—K. E. Chew, Union Gas & Electric Co., Bloomington, Ill.
Sec.-Treas.—R. V. Frather, 305 Illinois Mine Workers Bldg., Springfield, Ill.
Conv., 1926. Chicago, Ill.

Indiana Gas Association

Date of affiliation—April 24, 1919.
Pres.—G. M. Johnson, Northern Indiana Gas & Electric Co., South Bend, Ind.
Sec.-Tr.—E. J. Burke, Room 1314, Peoples Gas Bldg., West Baden Springs, Ind., Sept. 21 and 22, 1925.

Iowa District Gas Association

Date of affiliation—May 21, 1919.
Pres.—C. M. Benedict, Des Moines Gas Co., Des Moines, Iowa.
Sec.-Tr.—H. R. Sterrett, 551 Seventh St., Des Moines, Ia.
Conv., 1926.

Michigan Gas Association

Date of affiliation—Sept. 18, 1919.
Pres.—Chester Grey, Lansing Fuel & Gas Co., Lansing, Mich.
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.
Conv., 1926.

Missouri Association of Public Utilities

Pres.—Wiley F. Corl, Community Power & Light Co., St. Louis, Mo.
Sec.-Tr.—F. D. Beardslee, 315 N. 12th St., St. Louis, Mo.
Conv., 1926.

New England Association of Gas Engineers

Date of affiliation—Feb. 19, 1919.
Pres.—H. N. Cheney, Boston Consolidated Gas Co., Boston, Mass.
Sec.-Tr.—J. L. Tudbury, 247 Essex St., Salem, Mass.
Conv., 1926.

Eastern States Gas Conference

Date of formation—April 11, 1923.
Pres.—W. Griffin Gribbel, John J. Griffin & Co., Philadelphia, Pa.

Gas Sales Association of New England

Date of affiliation—Oct. 1, 1919.
Gov.—J. J. Quinn, Citizens Gas Co., Quincy, Mass.
Sec.-Tr.—H. Summer, 719 Massachusetts Ave., Cambridge, Mass.
Annual Meeting, 1926.

New Jersey Gas Association

Date of affiliation—April 25, 1919.
Pres.—H. D. Whitcomb, Public Service Electric & Gas Co., Newark, N. J.
Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.
Conv., 1926.

Pacific Coast Gas Association

Date of affiliation—Sept. 18, 1919.
Pres.—E. L. Hall, Portland Gas & Coke Co., Portland, Ore.
Exec. Sec.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif.
Conv., Portland, Ore., August 17-20, 1925.

Pennsylvania Gas Association

Date of affiliation—April 10, 1919.
Pres.—Wallace G. Murft, Bucks County Public Service Co., Newtown, Pa.
Sec.-Tr.—Geo. L. Cullen, Harrisburg Gas Co., Harrisburg, Pa.
Mid-Year Meeting, Scranton, Pa., Dec. 7, 1925.

Southern Gas Association

Date of affiliation—May 20, 1919.
Pres.—S. E. Linton, Nashville Gas & Heating Co., Nashville, Tenn.
Sec.-Tr.—J. P. Connolly, 141 Meeting St., Charleston, S. C.
Conv., New Orleans, La., March 15, 16, 17, 1926.

Southwestern Public Service Association

Date of affiliation—September 26, 1923.
Pres.—W. E. Wood, Houston Electric Co., Houston, Texas.
Chairman Gas Section—P. E. Nicholls, Galveston Gas Co., Galveston, Texas.
Sec.—E. N. Willis, 403 Slaughter Bldg., Dallas, Texas.
Conv., 1926.

Wisconsin Utilities Association

Date of affiliation—March 25, 1919.
Pres.—G. H. Wilmarth, Northern States Power Co., Eau Claire, Wis.
Chairman Gas Section—S. B. Sherman, Wisconsin Gas & Electric Co., Racine, Wis.
Exec.-Sec.—J. N. Cadby, 445 Washington Bldg., Madison, Wis.
Conv., 1926.

Geographic Divisions

Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.
Conv., 1926.

Employment Bureau

SERVICES REQUIRED

WANTED—An experienced man to take charge of gas department in a small New England city. It is a water gas plant with annual sales of about 31,000,000 cu. ft. In writing state fully your training, experience and salary expected. Address A. G. A.

Key No. 046.

WANTED—Water heater salesman wanted by well-known manufacturer of automatic gas water heaters; preferably residing in Brooklyn, N. Y. Address A. G. A.

Key No. 056.

GAS COMPANY operating in the Metropolitan District, New York, offers a permanent position to a thoroughly qualified Street Main Foreman. Address giving experience, salary expected and when services are available. Answers will be considered confidential if desired. Address A.G.A.

Key No. 058.

DESIGNER—Well known manufacturer of high grade gas burning appliances has a position open for a competent man for experimental work and design of gas stoves, radiant heaters, tank water heaters, etc. Must be a practical man experienced with gases of various kinds and qualities. State fully your training, experience and salary expected. Address A. G. A.

Key No. 062.

WANTED: Man capable of repairing and proving tin meters, by manufactured gas company operating in a town of forty thousand people in Rocky Mountain section. Climate ideal for persons with lung trouble. Address A. G. A.

Key No. 063.

WANTED—Young man as Assistant in Gas Distribution Department, New England company serving population of 100,000. College graduate with one or two years practical experience in low and high pressure distribution preferred. In writing, state fully training, experience and salary expected. Address A. G. A.

Key No. 065.

WANTED—Thoroughly experienced Superintendent for Manufactured Gas Property located in the South. Present output approximately thirty million cubic feet. Applicant must understand coal gas manufacture, have excellent personality, and be able to increase the business. The city has a population of about 20,000. State age, experience in full, references and salary required. Address A. G. A.

Key No. 066.

SERVICES OFFERED

ENG-SUPT. of one of the largest gas plants in the country would consider change. Desires to locate with company in which opportunities for future advancement are better than in present position. Is a married man. Has technical University training. No particular preference as to location. Address A. G. A.

Key No. 159.

EXECUTIVE, with fifteen years' experience in coke oven practice on plants manufacturing surplus gas for city consumption, desires connection with growing public utility either as executive or position leading to same. College graduate, good personality, married. Available on reasonable notice. Address A. G. A.

Key No. 172.

WANTED—Executive position by young man with eighteen years' (18) experience in all branches of gas business. Eight years (8) as manager. Past four years, vice-president and general manager of gas company with nearly 10,000 meters. Mechanical engineer. Will accept position as manager of company with 7,000 to 10,000 meters, or assistant manager and engineer, with larger company. Married man. Replies must be strictly confidential. Address A. G. A.

Key No. 177.

WANTED—Am open for position as appliance salesman with Gas Company or Appliance Manufacturer. Have had twelve years' experience selling ranges, water heaters, room heaters and illuminating devices. Am at present employed in this capacity by a large corporation, but desire to make a change. Can furnish references from present and past employers. Married. Can report on reasonable notice. Address A. G. A.

Key No. 179.

WANTED—Position as Manager of Gas Company. Coal or water gas. College trained. Have served in works, street and office. Doubled meters and doubled output in last position. Address A. G. A.

Key No. 184.

WANTED—An Executive Position in Commercial Department. Young man with 14 years' experience and a thorough knowledge of the gas business. Salary discretionary. Address A. G. A. Key No. 186.

WANTED—Executive position with more promising future by man with a broad practical experience in the manufacture and distribution of gas and electricity; also in the distribution of natural gas. Have operated successfully an executive combined gas and electric property for over ten years. Services available upon reasonable notice to present employer. Address A. G. A.

Key No. 188.

POSITION—Wanted as Supt. of small gas company or as General Foreman of large plant. Approximately seventeen years' experience in branches of manufacture and distribution, high and low pressure systems. Address A. G. A.

Key No. 190.

WANTED—An executive position in Commercial Department. Young married man with 12 years' experience and a thorough knowledge of gas and electric accounting. Moderate salary desired. Available on reasonable notice. Address A. G. A.

Key No. 191.

INDUSTRIAL ENGINEER available on short notice. Nine years' experience in industrial and commercial department supervision. Record and references will be furnished. Address A. G. A.

Key No. 192.

WANTED: Position by a Gas Engineer with twenty-three years' experience in all branches of the gas business and who has had experience in plant efficiencies and gas distribution problems. His connection with a strong operating company would make him a valuable man for a holding or a large operating company owing to his ability to reduce manufacturing and distribution costs. Would prefer position in the East. Address A. G. A.

Key No. 193.

WANTED: Position as Manager of Gas Property 10,000 meters or more; prefer city where public relations are not good. Address A. G. A.

Key No. 194.

PROGRESSIVE GAS MANAGER, with Universal training, at present employed, desires change. Am married and man of family; have sixteen years' experience coal and water gas manufacturing, high and low pressure, construction and distribution. Desires connection with gas company with daily sendout of from one to two million cu. ft. Am a go-getter as to industrial new business. Best of references. Address A. G. A.

Key No. 195.

PUBLIC UTILITY EXECUTIVE, with broad experience in engineering, management and finance, desires position. Offers character, integrity and ability with service. Address A. G. A.

Key No. 196.

WANTED—Position as Manager or Engineer for a gas or gas and electric property by practical Engineer thoroughly conversant with management problems, rates, industrial business development, design, construction and operation of coal and water gas plants, high and low pressure transmission and distribution. Considerable experience with electric power plants and natural gas properties. Technical education and twenty-two years' experience, fourteen years of which have been in gas and public utility work. Address A. G. A.

Key No. 197.

OPERATING ENGINEER desires communication with a utility property requiring the services of an operating engineer. Property either electric or gas or combined preferably in a medium size city with 25,000 customers or upward. Location preferably north central State or Canada. Position general superintendent or manager. Has had twenty-one years active contact with operating problems of diversified nature in electric, gas, water and telephone utility service as code engineer, superintendent of distribution, chief engineer, general superintendent and manager. Am at present employed. Address A. G. A.

Key No. 198.

WANTED: Position as manager or superintendent of a coal, water or combination gas plant, by a technical man, thirty-five years of age, with thirteen years' all around gas experience. Services available upon reasonable notice to present employer. Address A. G. A.

Key No. 199.

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